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Resident Physician

September 1958, Vol. 4, No. 3

Equipping the Internist's Office

The Doctor Speaks Spanish

Albany Medical Center

Research in Nonuniversity Hospitals

The Quack and the Law

Medical Ethics and Etiquette

". . . A Splendid Ointment"

Journal for the Hospital Staff Officer

CHIEF OF SERVICE, RESIDENT AND INTERN

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Resident Physician

September 1958, Vol. 4, No. 9

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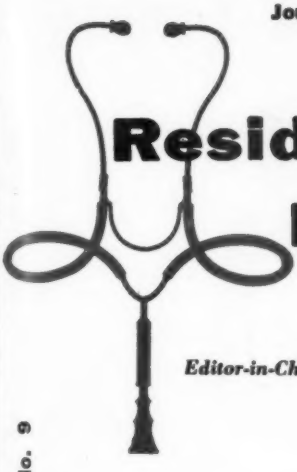

Resident Physician

September 1958, Vol. 4, No. 9

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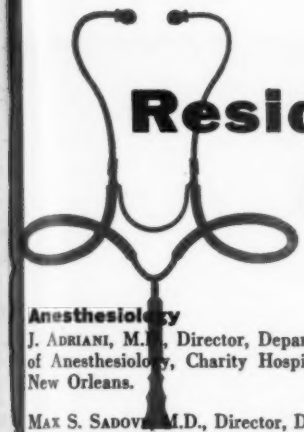
1. Maynert, E. W. and Losin, L.: J. Pharmacol. & Exper. Therap. *115*:275-282 (Nov.) 1955.
2. Butler, T. C. et al.: J. Pharmacol. & Exper. Therap. *111*:425 (Aug.) 1954.



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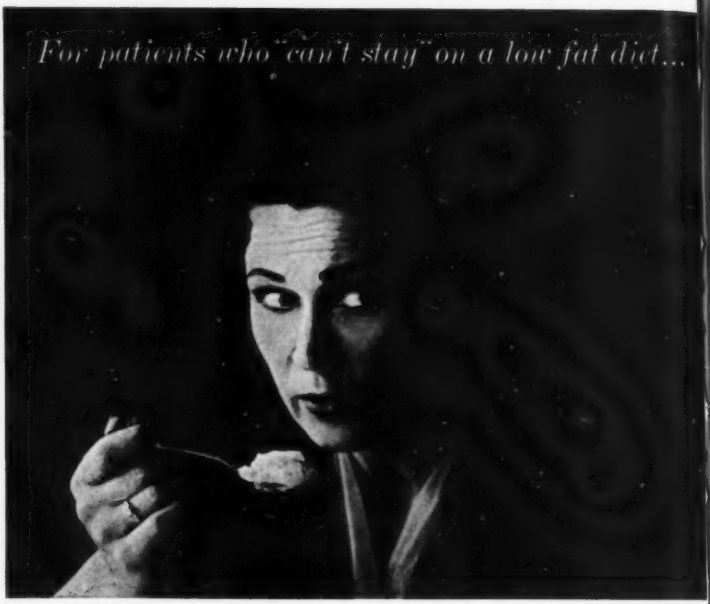

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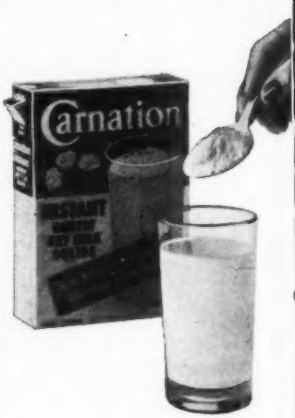

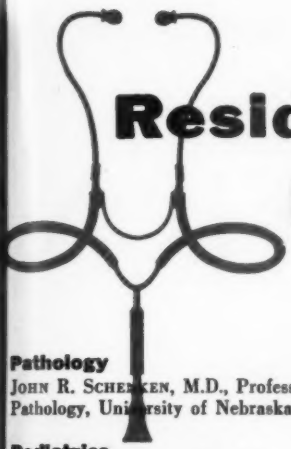

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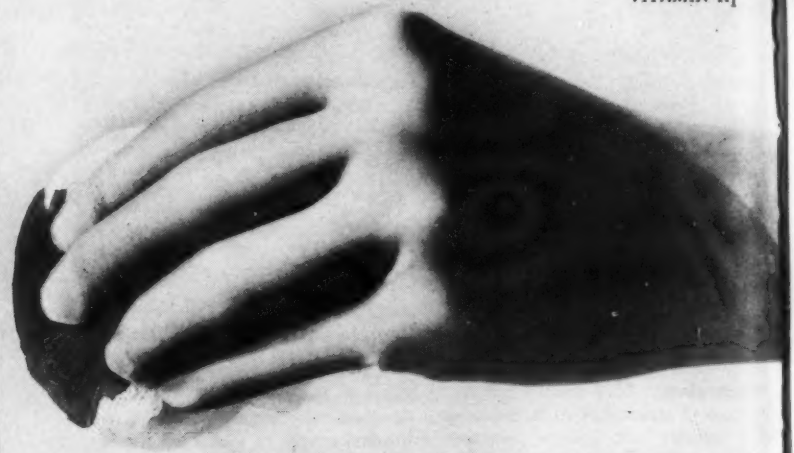

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*Council on Pharmacy and Chemistry: New and Nonofficial Remedies, Philadelphia, J. B. Lippincott Co., 1956, p. 505.

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The following index contains all the products advertised in this issue. Each product has been listed under the heading describing its major function. By referring to the pages listed, the reader can obtain more complete information. All products listed are registered trademarks, except those with asterisk(*).

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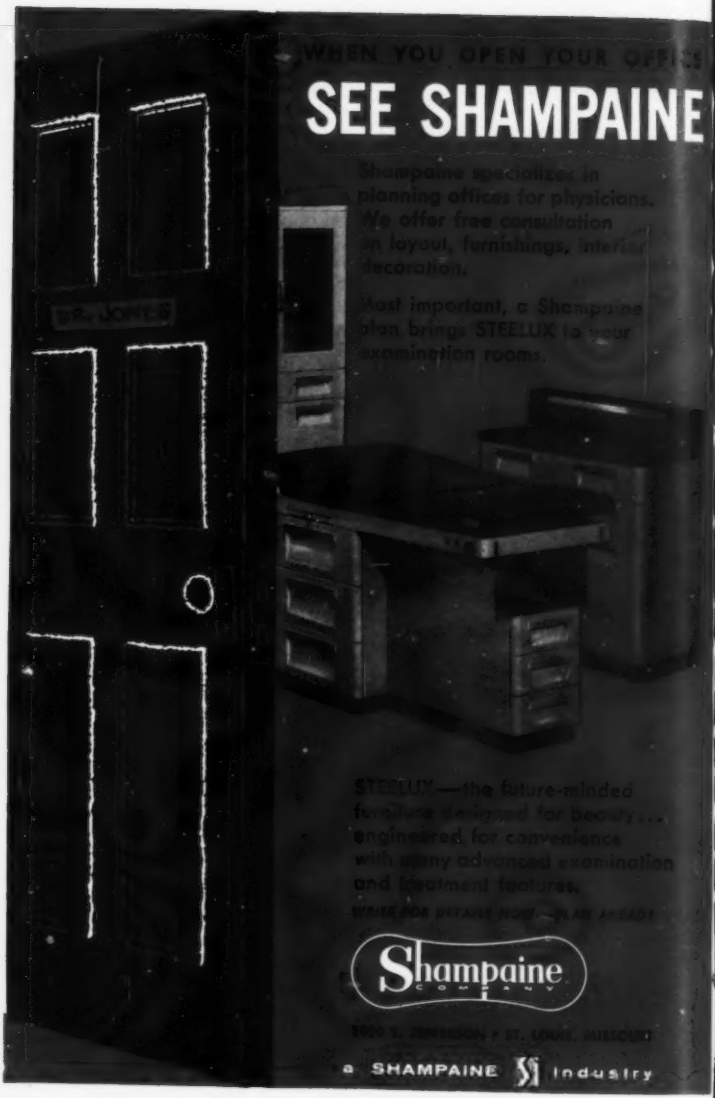
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Viewbox Diagnosis

Edited by Maxwell H. Poppel, M.D., F.A.C.R.,
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What Is Your Diagnosis?

1. Tumor
2. Tuberculosis
3. Polycystic disease
4. Normal

Answer on page 169

when you prescribe protection...

Consider her comfort. Women naturally welcome the comfort of the RAMSES® Diaphragm, with its cushion-soft rim, flexible in all planes to adjust to vaginal muscular action. The RAMSES dome, velvet smooth and thin, yet strong and durable, fits closely over the cervix to form a barrier against sperm.

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1. Tietze, C.: Proceedings, Third International Conference Planned Parenthood, 1953.
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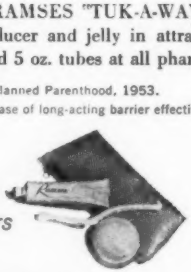

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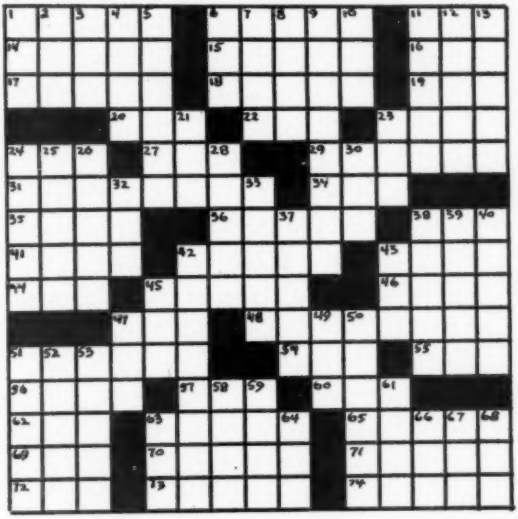
(Answer on Page 169)



ACROSS

1. Unborn child
4. Small amount
7. Central nervous system (abbr.)
8. Any substance capable of acting upon the organism
11. A blood corpuscle
14. Strike
15. Hot alcoholic drink
16. Exudes
17. Suffix denoting a salt or ester
18. Aged
20. Ichthyology (abbr.)
21. Paradise
24. A unit of air pressure
27. Organ of hearing
29. Intestinal (comb. form)
31. Respires
32. Beverage
35. Skills
36. Cessation of respiration
37. Black, viscid liquid
40. Work
42. Scrub
44. Plantar surface
45. Age
46. Entomology (abbr.)
47. C2
48. ——rge, Sweden
49. Not positive
50. Without a fetus
51. Born
52. Mesh fabric
53. Collection of women
54. Labium
55. Attempt
57. Reproductive cells
58. Tip again
63. Spot of healthy tissue in a diseased area
65. A color
66. A contemptible person
67. Artist's tool
68. ——matode, enteric worm
69. Property
70. Swelling

DOWN

1. Corpulent
2. The self
3. Spread for drying
4. Untie
5. A slender probe
6. Definite article
7. ——ngton, Artist of the West
8. Derived from ammonia
9. Rubber tube
10. Editors (abbr.)
11. Reproach
12. Potassium nitrate
13. Contracted (prefix)
21. Disordered action of the heart (abbr.)
23. Greek letter
24. Lessen
25. Mistake
26. Meshworks of nerve fibers
28. Respond to a stimulus
30. ——r, close
32. ——eep, dozing
33. Curette
37. A divine spirit
38. Poison
39. Vital
40. Place again
42. Standard chart for eye examinations (pl.)
43. Rested
45. Peron's wife
47. Pig pen
49. Procure
50. Micro-organism which grows in air
51. Miscarry
52. Hyperpyrexia
53. Elude
58. Inflammation (suffix)
59. Wind——, Trachea
61. Three feet
63. Right sacro-anterior (abbr.)
64. Domesticated animal
66. To petition
67. Distinctive doctrine
68. ——w, G.B.S.

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Letters to the Editor

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Oklahoma

I was very much interested in reading the article on "Licensure for Foreign Graduates" contained in your April 1958, Volume IV, No. 4 issue on page 64. Unfortunately, the information contained on our state of Oklahoma is, I am sorry to say, misleading and inadequate as it completely omits mentioning the fact that in order to be accepted for a residency in the state of Oklahoma, one has to have a license and that such a license is issued only to those who have passed the Basic Science Examination which requires citizenship. Your list specifically mentions that no citizenship is needed for these licenses. While that seems to be true, actually one is not admitted to the State Board Examinations unless one has the Basic Science Certificate for which citizenship is needed. The article also does not mention that the state of Oklahoma is one of thirteen which requires its residents to have licenses and the licenses are given on the same basis as the permanent licenses for any other physician. As far as the requirement of any proof of medical school is concerned, this is practically impossible to achieve for foreign graduates since one has to prove to the satisfaction of the board that the school from which one has been graduated, in the year of graduation, has requirements of a Grade A school in the United States in the same year. A resident in the state of Oklahoma is defined as any physician who has already served a year of internship in the United States. For this reason, it is at the present time impossible for any foreign graduate to accept a residency in Oklahoma except in the Medical School of the University of Oklahoma where these requirements are not in force. We have been told that as soon as the new Educational

—Concluded on page 38

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Pearl River, New York

—Concluded from page 32

Council for Foreign Medical Graduates is working and functioning that the State Board of Medical Examiners will accept their approval and then will try to change the law in Oklahoma accordingly. Until that time those hospitals which are recognized for the training of residents will find it extremely difficult to obtain enough residents from American graduates. It seems that there are not enough physicians available for residencies, or that too many residencies are available for those American physicians which we do have.

Leo Lowbeer, M.D.
Pathologist
Hillcrest Medical Center
Tulsa, Oklahoma

. . . Inside the Park

. . . Reference your articles on pages 57 and 64 ("Educational Council for Foreign Medical Graduates" and "Licensure for Foreign Graduates"), April '58.

HOME RUN!

Lots of thanks on behalf of all foreign M.D.s.

Ernesto Waingortin, M.D.
St. Vincent's Hospital
Worcester, Mass.

Maryland Licensure

We shall appreciate it if you will insert in the next issue of RESIDENT PHYSICIAN the following:

Medical Licensure Data for the State of Maryland for Graduates of Foreign Medical Schools—

Effective January 1, 1959, all graduates of foreign medical schools must first take and pass the Screening Board Examination given by the Educational Council for Foreign Medical Graduates before being eligible to take the Maryland State Board Examination.

All graduates of foreign medical schools may be accepted after completion of three years training in approved American hospitals, one year of which must be a rotating internship or one year of residency in internal medicine; and also, one of the three years must be served in an approved hospital in the State of Maryland, if their credentials have been approved and they have presented at least two letters from medical authorities in the hospitals recommending them as to their professional ability and moral character. Graduates of foreign medical schools are NOT accepted for licensure on the basis of reciprocity or endorsement.

A certificate of naturalization or formal declaration of intention for citizenship is required. Ability to write and speak English clearly is a primary requisite.

A passing grade of 75% in each subject is required of all candidates.

Frank K. Morris, M.D.
Secretary
Board of Medical Examiners
of Maryland
Baltimore, Maryland

Perrin H. Long, M.D.

Editor's Page

Where Are My Orders?

YOUR EDITOR had fifteen days of active duty with the United States Army in Europe during the Lebanon crisis in July. During this period I had a chance to observe certain phases of the airlifts from Germany. I can state categorically that these operations were carried out with a quiet efficiency which made me proud of being a member of our military forces. There was no fun, no feathers, no fanfare; simply a group of well-trained individuals carrying out a mission on behalf of their own country in particular, and the free world in general.

But what I was especially impressed with was the evidence of motivation, and the attitudes and reaction of those who were to be airlifted. I would like to discuss this particularly as it applied to members of our own profession.

It has been the policy of the medical division in this theater to keep doctors at about half the strength of the Table of Organization of fighting units, but also to be ready at any time to supply needed medical officers if units are faced with an emergent situation.

Ordinarily, these officers are stationed in active army hospitals where they perform that professional work which their individual capabilities permit them to do. They know that if "the ballon goes up" they will immediately report to designated field units.

One evening towards the end of the first week of the Lebanon affair, I was sitting in the home of the chief of professional service of one of our larger army hospitals in Germany, discussing what was going on, when the door bell rang. My host went to the door and after a few minutes, he returned and said, "That was Colonel————, chief of the surgical service, who just came to tell me that Major———— of his staff was alerted for early movement at 9:30 tonight." "Oh!" said my host's wife, "what does that mean? I thought Captain———— had that mobilization spot?" "Well he did," said my host, "but he's not available and Major———— was chosen instead."

"But" said my host's wife, "he's due to go home soon, and his wife is going to have a baby in two months. Why did they pick him?" And from then on, until I left a little later, all conversation centered about Major———— and his wife.

Certainly they were faced with a great personal crisis, and one for which there would be ample grounds for asking for a relief from such an assignment for compassionate reasons. I thought about these two young people for a long time before I went to sleep that night, wondering what they were talking about and how they are taking this turn of fate.

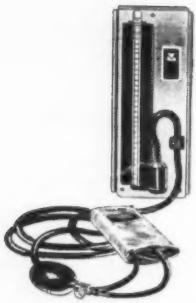
Early next morning I was waiting in the commanding officer's office when I noticed a major outside the door. As soon as the C.O. arrived the major began questioning the C.O. The gist of the conversa-

tion was simply, "Where are my orders? When can I get going?"

Not a word about getting out of his assignment or about anything else.

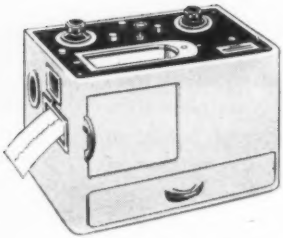
I was terribly proud of this young doctor because I could feel the emotion which he and his wife must have had at this sudden change in status which came like a bolt out of the blue. They had had to make fundamental decisions because no one could predict when they would be together again, if ever. Yet nevertheless, they faced the emergent situation resolutely so that the young major, displaying motivation of the highest order, could say without hesitation two sentences which should make every member of our profession glow with pride. "Where are my orders? When can I get going?"

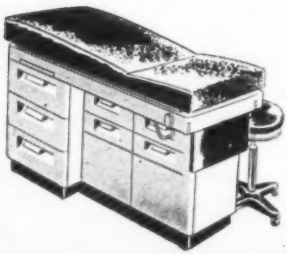
Perrin H. Long.



First of a series on various specialties

Equipping the Inte





What equipment is needed by the internist completing residency and preparing to open an office?

RESIDENT PHYSICIAN recently put this question before a number of practicing internists. Cautioned to keep in mind that cost was an important factor for the new man starting out, many responding internists described some of the costly mistakes they had made when equipping their own offices.

Based on their experiences, this article is presented as a general guide for those residents who will soon be equipping their own offices for the practice of internal medicine.

Though such things as decor, style and layout of an office are best left to the individual taste of the physician (or his wife), the resident would be wise to visit an office equipment firm since many offer a free consulting and advisory service. Some will even furnish your entire office on the cuff—and at reasonable bank rates.

To get a first-rate office properly equipped for your beginning practice can be a difficult job—and costly, too. But if you plan carefully, you are certain to save much time, trouble and money.

Internist's Office

There are two ways in which a resident can help himself avoid mistakes: 1) consult an office equipment company. Many maintain an advisory staff experienced in equipping doctors' offices, and 2) make a tentative list of equipment items you think you'll need immediately—together with cost estimates.

Waiting room

Since the practice of internal medicine deals primarily with adult patients, the depredations of galloping juveniles need not be considered by the internist when choosing his waiting room fixtures, furniture, and floor covering. (Now aren't you glad you're not a pediatrician!)

In other words your waiting room need not be "kid-proofed" with everything done in plastic, steel and concrete.

Instead, you can make your waiting room comfortable, soothing, with a bit of luxury—but not gaudy.

Keep in mind that wall color, furniture, floor, even the pictures on the wall should be chosen with the idea of a calm and relaxed atmosphere—not exciting or stimulating.

Some internists indicated they favored a homey atmosphere, others felt a functional, business-like, professional-looking set-up was best.

Carpet

All agreed that carpeting (not linoleum, tiles, etc.) was necessary . . . if not throughout the office, at least, in the waiting room. Carpeting certainly adds dignity to any room. This, plus the quieting effect which carpeting has on a room, makes it well worth its greater expense as compared to other types of floor covering.

Carpet cost, of course, depends pretty much on the size of the room and the quality of the carpet. A neutral shade (easier to keep clean) of good quality wool or blended fiber would run from $10 to $15 a square yard or about $150 for a 9x12 room

covered wall to wall. Since the average waiting room of the internists survey is larger than this, the average carpet cost, plus under-pad, ran to $220 among internists polled.

In commenting on chairs for the waiting room, few of the internists questioned had upholstered furniture. Such furniture, in their opinion, gathered dust, was difficult to clean, was initially expensive, and not very durable. Plastic-covered wood led the field with leather-covered a close second. There is little to choose between them except that leather costs more, while a wider variety of colors appears to be available in the plastic covering.

Durability and ease of cleaning were the reasons given for the selection of these materials over the overstuffed or upholstered furniture. The cost of such chairs averaged about $35 each, with 5 chairs and a sofa being about the average number of pieces.

Two or three small tables are important since they serve the triple function of providing a base for table lamps, a resting place for magazines, and a location for ash trays. Incidentally, never mind about the cute little ash trays suitable for a woman's bridge party. Get the man-sized jobs that'll keep cigarettes from ruining your brand new tables and carpet. Tables need not be expensive. Well-designed wooden tables can be purchased from $25-$45 each.

Table lamps add warmth to the room and can be purchased for under $40 each. Most internists expressed a preference for the table lamp over wall fixtures or floor lamps. More intimate, and uncluttered floor space were two reasons.

Consultation room

The consultation room is, for the internist as for most specialists, perhaps the most important room in his office. Here the history is taken. Here the doctor and the patient first meet. And the first interview is often lengthy. So this room should be extra nice. Again the consensus of opinion was that a carpet is an important addition, but not an absolute necessity.

A desk, of course, is needed. The price of the desk will depend upon the style, size, and the material. In general the average price paid for a desk, according to our survey, was $150. But, this figure varied from $50 all the way to $500. One point: the desk should be large enough, contain enough drawer space for some of the hundreds of items the internist will want at his fingertips.

Even more important perhaps, than a desk, are the chairs for patients and for the physician. Your chair should be picked primarily for your comfort. It will be your best friend and will be near you for many years. Try before you buy. Good chairs can be expensive. According to internists, the chair they thought best, in some cases, cost as much as $250.

The patient's chair should also be

chosen for comfort, but for the comfort of the *average* individual. Our respondents indicated an average cost of $75.

One other chair may be necessary for the friend or relative of the patient. This can be armless, but probably should be covered with the same material as the patient's chair.

In choosing a desk lamp, care should be given that the light is reflected downwards, not into the patient's eyes. A good desk lamp can cost anywhere from $25 to $50.

A bookcase may be a good idea in the consultation room. A bookcase is colorful, adds to the patient's confidence in the doctor. Bookcases can be purchased as a unit. The price quoted may be $75 or $100. Bookcases can also be custom built to fit odd-sized wall areas.

A cabinet may be useful in your consultation room if there is space enough. Prices run in the neighborhood of $50 to $75.

Examining room

Most internists queried bought examining room equipment in sets of three or four pieces; that is, an examining table, a treatment cabinet, a treatment stand, a stool, and a sanitary can. Prices vary according to the type of equipment purchased, the materials, and the manufacturer. In general, a set bought new can cost as little as $500, or as much as $1,000 or more.

A good examining table can be purchased new for from $250 to $800. The difference in price depends upon the type of materials, decorations, and extra features provided. Some internists, at the beginning, purchase an examining table second hand. A second hand examining table in good condition usually can be purchased for under $100 and an adequate re-finishing can be done for $25 to $30.

A treatment cabinet and a treatment stand may not be necessary right away. Perhaps money could be saved by using wall shelves or built in cabinets to serve the same purpose. In either case, most internists reported they purchased the treatment stand for under $75 and the treatment cabinet for a similar price.

Examining lamps vary from as little as $15 to as much as $260 and more; the difference depending upon the source of light, type of illumination, and size.

Whether or not you need x-ray equipment or a fluoroscope immediately is a debatable point. Twenty percent of the specialists queried felt an x-ray machine was necessary even in the *beginning* practice. However, nearly 80% felt that a fluoroscope is required. A used fluoroscope can be bought for from $550 to $800. Of course, as with any used equipment, price is not as important as the good reputation of the seller. A guarantee on the tube is a minimum requirement.

New fluoroscopes are available at prices from $1200 up.

A new x-ray machine will cost anywhere from $1200 to $12,000. The wide price range indicates the many variations in size and ampere capacity of x-ray equipment. But, 100 MA machines start at $3,000.

If your future office is to be separated from your home, you can plan on having a refrigerator. The type is not as important as the size. In general the price of a new refrigerator will run from $100 to $250 depending on the style and volume of storage provided. A refrigerator should be small enough so it won't dominate a room, but at the same time it should be of sufficient capacity to store your requirements of antibiotics and medicinals.

Laboratory equipment

For the beginning internist, in order to cut down expense, it would probably be wise to gradually accumulate laboratory equipment instead of trying to get everything immediately. You should of course have equipment sufficient for doing complete blood counts, urinalysis, and sedimentation rate. The cost here is small when compared with the income derived. A used microscope can be purchased from $175 to $250. New microscopes run from $325 to $550. Other equipment needed for these tests can be purchased for not more than $65 or $75.

A centrifuge will also be necessary. Be sure it has sufficient speed to do an accurate hematocrit since hematocrits and urines will constitute your need for a centrifuge. Cost may be about $50.

Photoelectric colorimeters and other equipment to do blood sugars and other detailed blood studies are very useful and can greatly increase income for the beginning practice. Thirty percent of the survey group stated that they had such equipment when opening a practice.

Electrocardiograph

The electrocardiograph was "the most important piece of equipment" needed by the young internist according to 90% of those polled. Most felt it should be purchased new. "This will be your best friend in practice," and, "It is the one item that will pay for itself in the first year or so" are typical comments on the EKG.

Prices of an electrocardiograph vary according to design and type. About $600 seems to be an average price.

On the question of basal metabolism equipment, the internists polled were split. About half felt BMR equipment was necessary to a beginning internist. The other 50% stated that they thought it can be postponed for at least a year or two. In general, if the additional expense is not too great a burden, the equipment should be purchased at the beginning, since it is an important aid in diagnosis. The added income would probably make the initial expense worthwhile. Prices range from $400 to $700.

A diathermy machine was considered an immediate necessity by 20% of the internists surveyed—however, here again expense was a factor.

A sterilizer or autoclave is a must, according to 95% of the survey group. The majority felt it should be bought new since the price of a sterilizer (cast-bronze boiler, chrome exterior: $60 to $100 depending on the size) is relatively small compared to the possibility of faulty electrical circuits in a used machine. Many recommended autoclaves; prices from $220 to $500, new.

A scale should be purchased; price should be about $60.

Other special instruments needed in the beginning practice of internal medicine are ophthalmoscope, a proctoscope, and a sigmoidoscope. Most internist residents have already purchased an ophthalmoscope at some time during their career. However, if a new one is desired, it can be purchased for about $50. About 70% of the group thought a proctoscope and a sigmoidoscope necessary at the beginning.

Drugs

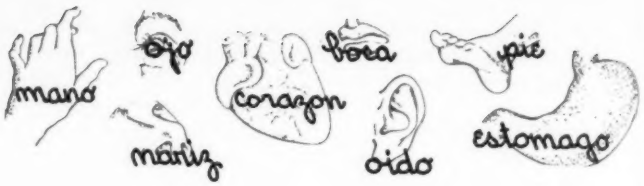
According to our survey, 50% stated that the initial stock of medicinals on hand for office use (not dispensing) cost less than $50. About 30% stated that their outlay was $100, while only 20% stated that they spent more than this sum. In general, it should be remembered that the only drugs needed immediately are emergency items; such things as antibiotics, heart preparations, stimulants, etc. Other items can be purchased as one goes along. A good rule here is to start slowly and build your drug supply selectively. However, deterioration is not a problem since most dated items are returnable.

The editors have attempted to give our internist readers an overall view. Many items are omitted. Many offices can be (and are) much more elaborately equipped.

Cost

We asked each member of the survey group to give an approximate figure for the cost of outfitting his original office. The figure was to be complete, including any items such as typewriters, nurse's desk, nurse's chair, filing cabinet, etc., some of which you may be able to do without.

Some 20% of our group outfitted their offices for under $2000. More than half spent $3000 to $3500 on their initial office equipment. Twenty percent stated that their offices cost between $3500 and $4000, and 5% reported costs of more than $4000. Remember, prices have increased since internists surveyed entered practice. Therefore, a rough estimate would indicate that an office for the practice of internal medicine can be equipped for under $4000; one or two larger items such as x-ray equipment, fluoroscope, and diathermy account for more than half this figure.



The Doctor Speaks Spanish

You don't have to be a language expert to handle a medical history and examination of a non-English-speaking patient. Here are medical words and phrases to help you break the language barrier.

IN many areas of the U.S., the number of foreign-born still comprises a large segment of the total population. In hospitals and medical centers located in these areas, physicians are frequently called upon to examine and treat patients who speak little or no English. And since few house officers are experts in foreign languages, it often becomes impossible for the doctor to communicate even the most routine request or direction to the patient. The result is at best frustrating for both doctor and patient; at worst, misunderstanding may endanger the health of the patient.

A non-English-speaking patient may come to the hospital accompanied by a relative or friend who acts as interpreter. But once the patient is admitted, he is alone with the hospital staff; the language barrier goes up and the difficulty begins.

To ease the anxiety of the patient and to help the physician conduct an efficient, accurate examination and history-

taking, RESIDENT PHYSICIAN has compiled a list of commonly used medical directions, questions and answers with translations into various foreign languages.

When using this language guide keep it open in front of you while talking with or examining your patient. Don't be overly concerned about getting the exact pronunciation of foreign words. If a word doesn't seem to be understood by the patient, repeat it a few times slowly, varying the pronunciation slightly until the patient indicates his understanding. Remember, the very fact that you are trying to speak to him in his native language will cause your patient to be more relaxed and responsive. Grateful for your efforts, he will do everything he can to comprehend and convey accurate, precise information.

For Examination of Spanish-speaking Patients

Pronunciation

1. The sound of vowels is constant:
   a—*ah*
   e—*ay*
   i—*ee*
   o—*oh*
   u—*oo*
   thus, pies is pronounced *pee-ayss*
   cuando is pronounced *coo-ahndoh*
   oido is pronounced *ohee'-doh*
2. The double L or "ll" has the same sound as a coupled *ly* in English; thus cuello (neck) is pronounced *koo-el-yo;* alli (there) is pronounced *ahl-yee.*
3. H is always silent (as in the English word "hour").
4. The J is pronounced like the H in English. (San Jose is pronounced *Sahn Ho-say;* La Jolla is *Lah Hole-yah).*
5. The letter Q is always followed by the letter U which is not pronounced. Thus—que (what or which) is pronounced *kay;* aqui (here) is pronounced *ah-kee.*
6. The N when written *ñ* is pronounced *ny* coupled with the following vowel. Thus, *años* is *ahn-yos.*

Courtesy

The courtesy titles *Señor* (Sir), *Señora* (Madam) and *Señorita* (Miss) are used freely. For the sake of brevity in this presentation, they are given only with the first few examples below.

Good morning, Sir	Buenos días, señor *boo'aynohs dee'ahs sayneohr'*
Good afternoon, Madam	Buenas tardes, señora
Good evening, Madam	*boo'aynahs tahr'des sayneoh'rah*
Good night, Miss	Buenas noches, señorita *boo'aynahs noh'chays sayneohree'tah*
Please	Haga el favor de . . . *ah'gah ell fahvohr' day*
How are you?	¿Cómo está? *koh'moh esstah'*

Anatomical terms

head	la cabeza	neck	el cuello
eyes	los ojos	chest	el pecho
ears	los oidos	heart	el corazon
nose	la nariz	lungs	los pulmones
mouth	la boca	shoulders	los hombros
teeth	los dientes	back	la espalda
tongue	la lengua	arms	los brazos
throat	la garganta	hands	las manos
fingers	los dedos de la mano	bladder	la vejiga
		rectum	el recto
toes	los dedos del pie	buttock	la nalga
legs	las piernas		
feet	los pies		
stomach	el estomago		

General questions

do you feel sick	se siente mal
do you have pain	tiene dolor
much pain	mucho dolor
mild pain	poco dolor
where	en donde
here	aqui
there	alli *(ahl-yee)*
when	cuando

how many years—months	cuantos años—meses
how many days	cuantos dias
how many weeks	cuantas semanas
how many hours	cuantas horas
how many times	cuantas veces
where were you born	en donde nacio
how old are you	cuantos años tiene

Directions to patients

do as I do	haga asi
relax	sueltese
relax more	sueltese mas
open your mouth	abra la boca
open your eyes	abra los ojos
breathe deeply	respire profundamente
breathe through your mouth	respire por la boca
hold your breath	no respire
push	empuje
cough	tosa

Systemic inquiry

EARS

he is deaf	esta sordo
noise in the ears	ruido en los oidos

HEAD

trauma	golpe a la cabeza
unconscious	insensible
did you faint	se desmayo
are you dizzy	tiene vertigo
headache	dolor de cabeza

EYES

sight	vista
clear vision	vista clara
near	cerca
far	lejos

NOSE

coryza	catarro
did you have a nosebleed	sangro por la nariz

THROAT

do you have frequent sore-throat	le quema la garganta frecuentemente

Diseases—enfermedades

measles	sarampion
scarlet fever	scarlatina
chicken pox	viruela buena
small pox	viruela mala
pneumonia	pulmonia
typhoid fever	fiebre tifoidea
enteritis	fiebre intestinal
U.R.I.	resfrio

Cardio-respiratory

do you tire easily	se cansa pronto
are you short of breath	respira con dificultad
does your heart beat fast	le late aprisa el corazon
do your feet swell	se le hinchan los pies
do you have pain in the chest	tiene dolor en el pecho
sharp pain	dolor agudo
dull pain	dolor sordo
when you breathe	cuando resuella
do you cough	tose
do you spit	escupe
sputum	saliva
bloody sputum	saliva con sangre
have you lost weight	se ha adelgazado
does someone in your family have a cough	tiene tos uno de sus parientes

Gastro-intestinal

do you have a good appetite	tiene buen apetito
do you have a poor appetite	tiene mal apetito
are you nauseated	tiene basca
were you nauseated	tenia basca
do you vomit	vomita
do you have diarrhea	tiene desposiciones (diarrea)
are you constipated	tiene estrenimiento
did you have a B.M. today	obro hoy
feces	excremento (caca)
black	negro
white	blanco
yellow	amarillo

brown	cafe (pardo)
bloody	con sangre
do you have cramps	tiene retorzones
after meals	despues de comer
before meals	antes de comer
did you take a laxative	tomo laxante
did you take castor-oil	tomo aceite de recino

Genito-urinary

urine	orina
do you get up at night to urinate	se levanta a orinar
does it burn	le quema la orina
chills	escalofrios
fever	calentura

Obstetrics and gynecology

at what age did you begin to menstruate	a que edad comenzo a menstrar
how many days do you flow	cuantos dias sangra
1 to 10	uno, dos, tres, cuatro, cinco, seis, siete, ocho, nueve, diez
do you have a discharge	tiene desecho
when was your last menstrual period	cuando fue se ultimo periodos
are you pregnant	esta en cinta
do you have pains with your period	tiene dolor con sus periodos
how many times have you been pregnant	cuantas veces ha estado en cinta
how many children have you had	cuantos niños ha tenido
how much did the largest weigh at birth	cuanto peso el mas grande al nacer
what was the duration of labor	cuanto tiempo duro el nacimiento (que estada la del nacimiento)

Pediatrics

did you have any trouble with the child's delivery	tuvo usted alguna dificultad en el parto
how are the child's stools	como son las evacuaciones del nino
constipated	esta estrenido
diarrhea	tiene diarrea
how many in one day	cuantas evacuaciones tiene al dia

does the child eat well	come bien el nino
any vomiting	vomito vez
does the face turn blue	se le pone azul la cara
does the child seem tired	aparece cansado el nino
does it hurt	le dole
it won't hurt	no le dolera
it will be finished in a minute	se terminara en un minuto
do you want a piece of candy	quieres un pedazo de dulce
did you take the temperature	le tomo la temperatura
what was the temperature	que temperatura tenia
what a big, handsome boy	que nino tan hermoso y guapo
what a beautiful little girl	que ninita tan bonita
baby (male, female)	niñito, niñita
child (male, female)	niño, niña
good	bueno

Norwich Pharmacal—parent company of Eaton Laboratories—grew out of a shoestring operation carried on by pharmacist Oscar Bell. Success came through Bell's determination, the help of associates, and the popularity of . . .

"... A Splendid Ointment"

Oscar Bell reclaimed a failing venture.

It was in the year 1885 that a tall stranger dressed in black arrived in Norwich, New York, a small upstate community. His arrival, like his later sudden departure, went almost unnoticed. But he is remembered because during his stay he started a business which today is recognized as one of the country's leading pharmaceutical companies.

This man was Lafayette F. Moore, not a physician or pharmacist, but a Baptist minister. Before coming to Norwich, he was the pastor of a church on Long Island. Though described as an eloquent and dedicated minister, he, like many another man, felt he was not doing enough for his family in a material way.

Thus his interest was aroused when his brother, recently retired from a small pill-making business in Manhattan, visited the rectory one day. The brother brought with him two pieces of equipment—a pill cutter and a gelatin coating machine which he gave to Moore.

It was not long after this that the minister, his mind made up to try a business career, bade his wife and son goodbye, saying he would send for them when he became established. He took a train for Norwich, taking the pill-making equipment and a few clothes with him.

What made him choose the upstate town is not clear. Maybe it was his conversations with his friend and colleague, the pastor of the Marcy Avenue Baptist Church in Brooklyn, whose son, Dr. Reuben Jeffery, had moved to Norwich following his marriage to the daughter of one of this community's prominent families.

When he arrived in Norwich, Lafayette Moore secured a room over a vacant cooper shop and immediately began the manufacture of a small line of pills with his crude equipment. Frequently, he visited the Corner Drug Store where he purchased supplies out of his meager working capital.

It was there that he met Oscar G. Bell, a pharmacist employed at the store. Moore and Bell would chat as Bell filled the order for quinine, gelatin or other ingredients. When it came time to pay, Moore would grope in his pockets to find the necessary sum. Then he would hurry back to his room to compound another supply of pills.

The manual operation of manufacture was laborious, but he enjoyed the work. Once he had accumulated a quantity of pills, he would count them out into containers and proudly label them: L. F. Moore, Pill Manufacturer, Norwich, N. Y.

Then he would stack the small packages neatly into a market basket, carefully lock the door of his room and set out to sell his product, spending the afternoon walking through the neighboring countryside and calling on physicians. These selling trips became frequent. The sprightly step of the slender, graying man dressed in black and with a basket under his arm, became a familiar sight to people in and around Norwich.

Debts

But Moore's ambition was greater than his capital. He had sent for his wife and 18-year-old son, and when they arrived in Norwich, he had moved to a larger apartment. His debts grew. By now he had obtained credit at the Corner Drug Store through Oscar Bell, who told the owner and his employer, Mr. T. D. Miller, that he would accept responsibility for Moore's debts.

On March 1, 1886, Moore accidentally met Dr. Reuben Jeffery, the son of the minister he had known in Brooklyn. The doctor beamed from ear to ear when he

saw Moore coming down the street with the basket under his arm. They clasped hands and exchanged greetings.

Dr. Jeffery was a big man, but he carried his weight with ease. He looked Moore over carefully as he recalled those evenings in Brooklyn when Moore came to visit his father at the rectory on Marcy Avenue. Since then, Jeffery had gone on to college and earned his degree in medicine, and had left his practice in Brooklyn following his marriage.

Moore was enthusiastic. He told Jeffery about his new enterprise and invited him to see the operation. Jeffery agreed, and the two of them made off for Moore's apartment in the Burr Block.

As they approached the entrance to the building, they were confronted by Mr. Burr, Moore's landlord, who courteously requested $3 from Moore for a month's rent. He didn't have it. He turned to Dr. Jeffery and asked him for a loan. Surprised, Dr. Jeffery told Moore to wait there and he would go uptown and secure the money.

Dr. Jeffery later wrote: "I did not know just where to go to borrow the money (I had not the experience in that line then that made me famous in later years) so I decided to call on T. D. Miller."

At the Corner Drug Store, he found its owner, Mr. Miller, and

Grain dealer Robert Eaton saw future for drug concern and lent his talents to its development.

R. C. Stofer, a chemist, succeeded in developing commercial formula for Jeffrey's ointment.

asked for the loan. Miller explained that to make loans "was contrary to the constitution and by-laws of his drug shop." Dr. Jeffery began to leave. Then, prompted by curiosity, Miller asked his departing visitor what he wanted the money for.

Dr. Jeffery gave him a quick description of Moore's business and generously offered Miller a "one-eighth interest in the 'Company' for the said three dollars."

Miller grinned. He pulled a wad of green bills from the pocket of his apron and counted out three, handing them to Dr. Jeffery. The new company had its first "stockholder."

Years later, Dr. Jeffery commented that if it had not been for Mr. Miller's kindness to him on that day, perhaps the company never would have existed.

Moore was again in business. He manufactured more pills each day but somehow managed to spend the profits before bills were paid. His credit reached the neighborhood of $200 at the drug store. Oscar Bell, who was responsible for Moore's bills, became worried.

One day T. D. Miller, in going over his ledgers, found Moore's outstanding bill. He quickly called his clerk in for an explanation. Bell told him it was all right; he would make the debt good himself as he had agreed to do. Just how Bell was to do this, he did not know. He had a wife and two children to support, and his salary was small.

He obtained a loan from his wife's uncle who lived in a town nearby. The very next morning he made the payment and informed Moore that his debt was wiped clean. This resulted in a partnership. Now the new labels read: Moore and Bell, Pill Manufacturers, Norwich, N. Y.

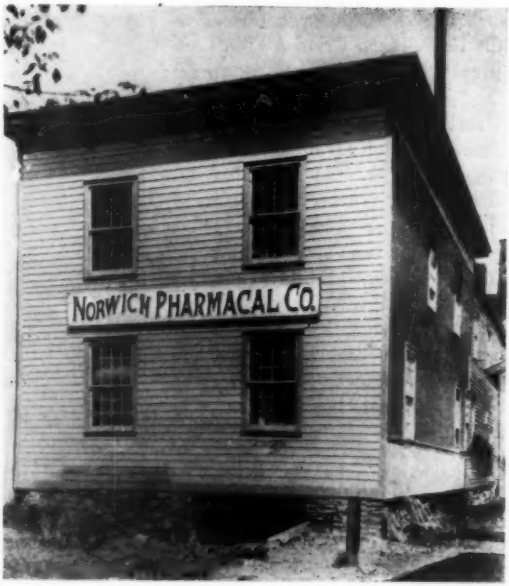
Departure

Bell agreed to keep the books for the new partnership in his spare time in order to keep his job at the Corner Drug Store. Moore would continue to manufacture and sell.

Things went along smoothly for a while, and the new firm even began to prosper in a small way. However, Moore was dissatisfied. With limited capital and limited credit, progress was slow. His dissatisfaction grew steadily, and one day he pulled up stakes and left town.

It was later learned that Moore had gone to Clinton, N. Y., near Utica, where he was employed by a small drug manufacturing company for a short time. A few years later he died somewhere in the Catskills.

Meanwhile, Bell's business affairs were in a parlous state. About the only thing Moore had left behind were outstanding bills. But again, Bell's determination was to see him through.



Original plant and offices of the Norwich Pharmacal Company. Bell coined word "Pharmacal."

He explained his circumstances to Dr. Jeffery, telling him if he could obtain $200, he would quit his job at Miller's and go the business alone. Dr. Jeffery was sympathetic. Together, they went to Isaac S. Newton, Jeffery's father-in-law, and succeeded in getting Bell the loan for $200.

Oscar Bell was on his own and the business gradually took hold. He sought and obtained new investors until, in 1890, Bell and three others associated and formed a company which was formally incorporated on March 31 of that year—The Norwich Pharmacal Company. The word "Pharmacal," which has identified the firm ever since, was coined by Bell.

Two years later, in 1892, 38-year-old Robert Denison Eaton purchased some preferred stock in the young enterprise. A native of Norwich and a graduate of the old Norwich Academy, Eaton was already a

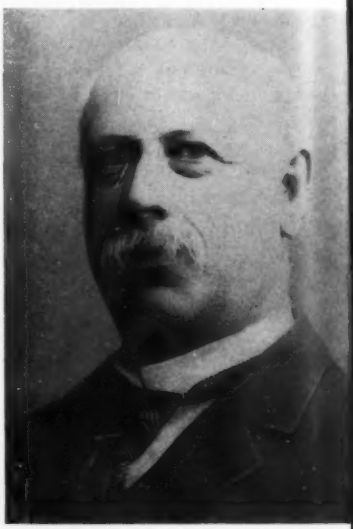
successful business man, owner of the R. D. Eaton Grain & Feed Company. He foresaw a great future for the "pharmacy" and felt it would be a real asset to the community. This prompted him to become actively engaged in it. On December 13, 1892, he was named inspector of elections for the new corporation.

By 1901 he was appointed a member of the board of directors and its secretary at a salary of $5 a week. Eaton was a man of ideas, and his business knowledge was to mold the plan of progress that would see the company grow to become a leader in its field before his death.

Old formula

In the meantime, Dr. Reuben Jeffery continued to watch the progress of Bell's enterprise with interest. Although his medical practice kept him busy (for he had become locally prominent as a nose and throat specialist), he kept in contact with Bell and frequently discussed the business with him.

It was about this time that Dr. Jeffery brought a medical formula to Bell to see about the possibilities of making it commercially. The formula had been in the Jeffery family for years. It had been given to his grandfather, Dr. Samuel Jeffery, in 1828 by Sir Astley Cooper, a famous English surgeon, when the former left England for the U.S.



Drugstore owner T. D. Miller kept the pill-making enterprise going with a $3 loan.

Dr. Samuel Jeffery settled near Geneva, N. Y., where he made and sold this ointment. He changed the name from Cooper's Alum Ointment to Jeffery's Universal Family Ointment which he packed into one ounce tin boxes and sold at 25 cents.

He continued to make and sell the product until his death, sometime after the Civil War. Since then, the formula had remained with Reverend Reuben Jeffery until his son approached Bell with the idea of making it commercially.

Bell was sworn to secrecy and began experimenting with Jeffery's ointment, but failed to come up with a workable formula. "It's a splendid ointment," he told Dr. Jeffery, "but no one can make the stuff so that it will be marketable."

Bell then employed a chemist, R. C. Stofer, and obtained Dr. Jeffery's permission to extend the pledge of secrecy to him so that Stofer might continue his investigation for a commercial formula. Stofer succeeded, and, in March 1893 Dr. Jeffery received his first contract for the use of the ointment. Jeffery, not a member of the organization, was to receive a royalty on the sale of the new product.

New name

It was then decided that the product must be given a name that would be quickly recognizable to the medical profession. From the Latin word "unguentum," meaning ointment, the name "Unguentine" was created. According to Dr. Jeffery, "Unguentine was the first ointment ever put on the market as a pharmaceutical preparation."

A demand had to be created. Since Dr. Jeffery was acquainted in Brooklyn, he and a few salesmen made arrangements to start the first Unguentine selling campaign there. Of this experience, Dr. Jeffery wrote: "Loaded with prescriptions calling for Unguentine from doctors that were friends of mine, we visited every drug store in the city. We knew that they did not have Unguentine but we were trying to create a demand. At last in a store on Court Street we found a druggist who had it, and one ounce cost me forty cents. That was enough, we did not try it any more. I would be a little timid about trying that experiment today unless I had a pocket full of money."

Results

This was in 1894. Unguentine became more and more popular. About this time, an advertising campaign in various medical journals was initiated, and prescriptions for the Norwich product began to multiply.

In 1900, Unguentine was used with good results for the treatment of over 40 victims burned in the North German Lloyd fire at Hoboken, N. J. The slogan, "Unguentine . . . First Thought in Burns," was introduced.

In 1906, less than two years before his death in Jacksonville, Florida. Oscar G. Bell resigned from the company presidency; he was succeeded by R. C. Stofer. The same year, R. D. Eaton's oldest son, Robert S. was graduated from the University of Pennsylvania with a degree in economics, and he became

a full time company employee (he is presently chairman of the executive committee).

Another son, Melvin C. Eaton, entered the business in 1914. A graduate of the University of Michigan and a holder of the degree of pharmaceutical chemist from the Medico-Chirurgical College of Philadelphia, Melvin Eaton proved a strong advocate of scientific research. (He is currently chairman of the board of directors, and his son, Thomas J. Eaton, is vice president and director of production and a member of the board.)

Research

The Norwich concern grew rapidly. As Dr. Jeffery stated it, "Nothing, 1886. One million and over, 1916."

By the 1930's The Norwich Pharmacal Company was a large national concern. It was then that the firm recruited a staff of research scientists.

(In 1933, during the early days of research, Robert D. Eaton, then chairman of the board, succumbed after more than a year's illness.)

By 1938 Drs. Dodd and Stillman were experimenting with the practically unknown organic compounds of the furan group; results showed the furans to be mildly germicidal. Long and comprehensive study of these compounds led to the discovery of the highly antibacterial nitrofurans in August 1944. These findings were published in a pharmacological journal and created widespread interest.

It was then decided to establish a professional products division to handle the development and promotion of nitrofuran products. This decision brought about the founding of Eaton Laboratories in 1945.

Since then, Eaton Laboratories has grown rapidly, with the nitrofurans being considered one of the major classes of antimicrobials. To date, over 450 antimicrobial compounds have been synthesized from the nitrofuran molecule. Because these substances are not found in nature, it seems assured that they will gain even wider application as new compounds are synthesized and studied.

But if it had not been for the pioneering of the man of the cloth, Reverend Lafayette Moore, the perseverance of the man with the mortar and pestle, Oscar G. Bell, and the man with a product, Dr. Reuben Jeffery, none of this scientific progress would have come about in the city of Norwich.

Robert E. L. Nesbitt, Jr., M.D.

Guest Editorial

To the Young Physician Who Must Storm the Ramparts of a New Age

Young physicians of today will live to see and participate in an era of unparalleled achievement. Technological breakthroughs have ushered in a Space Age which promises to unshackle earth-bound man in the short span of a few decades. We have embarked upon a complex and enigmatic existence that will depend undoubtedly, within a very few years, upon our mastery of the science of space, rocket travel, and our ability to exploit the potentials of outer space.

The staggering advances in rocket technology will inevitably broaden the basic requirements and scope of the biologic sciences. Physicians of the future must necessarily concern themselves with the physical sciences if they are to appreciate the subtleties of human physiology and behavior in the rigors of new environs. There are undoubtedly innumerable unforeseen medical problems relative to the conquest of space that will come to light only in the wake of the exploration itself; and these problems will be interwoven with those of ethics, morality, philosophy and religion occurring as an outgrowth of a complex and ever-changing society.

ROBERT E. NESBITT, M.D., Professor of Obstetrics and Gynecology and Chairman of Obstetrics, Albany Medical College; Obstetrician-in-Chief and Attending Gynecologist, Albany Hospital, Albany, N. Y.

The physician of the future will not be able to assume a passive role, as so many of his immediate predecessors have done, in meeting the demands of community responsibility. Society will look to its physicians for moral and ethical, as well as professional leadership in meeting its problems. These responsibilities cannot be abdicated or relegated to future generations if our profession is to serve the best interests of the community, and is to assume its rightful place in shaping the world of tomorrow. The young physician must be no less proficient in the humanities than he is in sciences if he is to meet these obligations to community and nation. His task will be made all the more difficult by the declining prestige of physicians in the community, observed principally over the past several decades, attributable in large measure to their relative inactivity in community projects and seeming disinterest in service organizations.

The worrisome truth is that the young physician of today with conventional training may not be altogether prepared to meet these several challenges of the future. His training falls within the twilight period between a classic education centered on the acquisition of established facts and of technical skills and a renaissance ideal devoted in part to a liberal education in the integrated physical and biologic sciences as well as in the humanities. His heritage of medical factual knowledge is far

greater than his professional heritage of a social sense of responsibility which extends beyond the individual to society as a whole.

But, even in the area of classic education, one should question the adequacy of preparation provided by the medical curriculum of many medical schools. Many of our young physicians have been severed from their ties to basic science by the chasm which bisects medical education in certain schools into precise pre-clinical and clinical components, with very little interrelationship between the two. Moreover, too few have blossomed under the expert tutelage of instructors who distinguish the known from the unknown and who create a broad frontier of unexplored territory to stimulate the inquiring mind. The plight of these earnest but ill-used persons was elucidated by J. H. Newman as long ago as 1859. He described these individuals as "persons who are forced to load their minds with a score of subjects against an examination, who have too much on their hands to indulge themselves in thinking or investigation, who devour premise and conclusion together with indiscriminate greediness, who hold whole sciences on faith, and commit demonstrations to memory, and who too often, as might be expected, when their period of education is passed, throw up all they have learned in disgust, having gained nothing really by their anxious labors, except perhaps the habit of application."

These several indictments of medical education and of the relative preparedness of the young resident physician in meeting the scientific challenges of the future do not dampen my earnest belief that he can and will reorient his educational perspectives.

The opportunities for self-education are limitless. One needs only to recognize the urgent need of such education.

A high level of medical competence can be a static

achievement with constant re-moulding as knowledge advances. One must continually refresh himself in the basic fundamentals of biologic processes and must not become centered exclusively on the acquisition of established clinical facts and of technical skills. Moreover, it is important to develop a high sense of social dedication as well as exemplary professional conduct and performance if the expectations and demands of an enlightened public are to be met. There are many service organizations available to young physicians that afford, with a minimal expenditure of time, the opportunity of valuable leadership training through participation in community affairs.

Serious-minded men and women who are anxious for a broad graduate training should seek out medical institutions that provide extensive experience in high-calibre patient care, a major teaching program that allows time for free thought and self-education, and at least limited facilities and opportunities for research. The program should have as its primary objective the training of first-rate practitioners of medicine, but should also be oriented academically to encourage a few individuals, who have already attained technical proficiency, to advance the bounds of our knowledge through research and thus raise the general level of medicine.

It is from this type of graduate student that the medical leaders of the future will be recruited. Adequate opportunities should be provided these individuals to prepare themselves for ultimate scientific leadership. The responsibility for fundamental research must not be relegated exclusively to our basic scientists.

The years ahead will provide unequalled opportunities for scientific achievement, but the young physician must not enter this new era ill-equipped. It has been said that the actual progress of science is initiated and at-

tended by the passion of individual scientists and the controversy of groups. It is the triumph of scientific men to rise superior to the fixed rules of life which, because of their long-standing acceptance, have assumed a prescriptive right not to be questioned. The ability to ask the right questions is more than half the battle of finding the answer.

The future will not tolerate a breed of medical scientists who are silent, and who are more concerned with security than integrity, with conforming than performing, with imitating than creating.

We must be sufficiently masters of ourselves to discard contemptuously whatever may be found untrue.

Many philosophers of our day decry the "patternization" of man in this technical civilization. Paul Tillich recently spoke out earnestly to a graduating class of University students that "we hope for non-conformists among you, for your sake, for the sake of the nation and for the sake of humanity."

To you who are entrusted with the medical welfare of mankind in the exciting years ahead, and who must storm the ramparts of a new age, may I likewise urge individual thought, creativeness and suppleness of intellect. These qualities of self-discipline and purposeful endeavor, and the recognition that medicine has become involved in all the cross currents of a modern society, are prerequisites to the fulfillment of your civic and professional responsibilities.

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one of a series
from leading medical centers

Clinico–Pathological Conference

Albany Medical Center, Albany, New York

This 54-year-old, white widow was admitted to the Albany Hospital on May 8, 1953, because of fever and diarrhea. Ten days prior to admission, she had a shaking chill followed by fever and a non-productive cough. The following day, she developed diarrhea characterized by 4 to 8 loose, brown stools a day without tenesmus. The family physician prescribed aureomycin, 250 mg. every 4 hours, and paregoric orally. Fever and mild diarrhea persisted. Two days before admission, the patient became incontinent, lethargic and confused. She had complained of slight soreness of the mouth since the onset of her illness and was also troubled by bouts of profuse sweating. The patient lived alone and ate irregularly. There was a history of moderate alcohol intake and mild exertional dyspnea. The patient had an appendectomy in childhood and pneumonia in 1949. She had three pregnancies, but had no living children. Her mother died of cancer of the breast, and her father succumbed to "heart trouble".

Physical examination

On examination at the time of admission, temperature was 101°F., pulse rate was 98 and respiratory rate, 30 per minute. Blood pressure was 130/70. The patient was moderately obese and appeared lethargic, but not confused. Skin was warm and dry. There was no lymphadenopathy. Motion of the neck was resisted, but actual stiffness was not present. All cranial nerves were intact, and the fundi were clear. Examination of the ears, mouth, nose and throat was normal. The chest was symmetrical; respiration was rapid and shallow. The

breasts were normal. The lung fields were clear with the exception of coarse rales at both bases posteriorly. The liver edge, palpable 6 cm below the right costal margin, was firm, smooth and non-tender. The spleen was not palpable. All extremities were normal. There was no gross sensory impairment, and all tendon reflexes were equal and active. The neurological examination was normal.

Laboratory data

Serological tests for syphilis were negative. Hemoglobin was 14 gm, erythrocytes were 4.41 million per cu mm and hematocrit 43 ml per 100 ml. Leukocytes were 3,750 per cu mm with 7% band forms, 70% neutrophils and 23% lymphocytes. Urine contained 1+ albumin, was negative for sugar and acetone and revealed 2 to 5 white cells per high power field. The specific gravity was 1.020. The fasting blood sugar was 92 mg and non-protein nitrogen, 27 mg per 100 ml. Stool (guaiac) was negative for occult blood. Photoroentgenogram of the chest was negative. An electrocardiogram was within normal limits. Lumbar puncture revealed normal spinal fluid pressure and dynamics. The fluid contained 34 erythrocytes and 4 mononuclear cells per cu mm. Total protein content was 14 mg and sugar, 56 mg per 100 ml. Chlorides were 123 mEq. per L.

Throughout her hospital stay, the patient had an unremitting fever which ranged between 100 and 104°F. During the first two days of her hospital stay, the patient became somewhat more lethargic and confused and her fever persisted. Six blood cultures drawn during this period, as well as four taken later, were sterile. Four urine cultures were also sterile. Six stool cultures showed the presence of *Escherichia coli* and *Streptococcus fecalis*. Blood agglutinations for typhoid, paratyphoid, brucellosis, and tularemia were negative. Heterophile agglutination and cold agglutinations were also negative. Because of the patient's poor condition, chloromycetin 250 mg every 4 hours was started at the end of the second hospital day. The next morning, three flat, rose-colored spots 2 to 3 mm in diameter appeared on the upper abdomen. These lasted four days. During the next three days, the patient's condition continued to deteriorate. She had 3 to 4 guaiac-negative, liquid, green stools per day and remained somewhat disoriented. Because of the patient's inability to swallow, a Levine tube was passed. Daily Sustagen feedings were supplemented by intravenous glucose, vitamin B complex, ascorbic acid and appropriate electrolytes.

On the fourth hospital day, the total white count was 3,750 with 56% neutrophils, 40% lymphocytes and 4% monocytes.

Bone marrow aspirate was hypoplastic, exhibiting a megaloblastic defect in the erythrocytic series.

Repeat marrow examination on the tenth hospital day was consistent with aplastic anemia. Aleukemic leukemia could not be ruled out. Several portable x-rays of the chest showed haziness of uncertain significance at both bases.

By the sixth hospital day, the patient's condition had worsened. Aureomycin, 500 mg intravenously, was given every 6 hours in addition to chloromycetin. Two days later, the patient's course continued downhill. Chloromycetin was stopped and cortisone was begun in dosage of 25 mg every 6 hours. By this time, the patient was dyspneic and had developed a decubitus ulcer. She was placed in an oxygen tent. There was no response to cortisone therapy. Two white counts in the next two days were 2,550 and 2,800 per cu mm with a moderate shift to the left in the granulocytic series. Hemoglobin had fallen to 9.5 gm and hematocrit to 32 ml per 100 ml. Fever continued unabated. The patient lapsed into coma and died on the fourteenth hospital day.

Discussion

Discussant: Richard T. Beebe, M.D., Chairman, Department of Medicine, Albany Medical College, Albany, New York.

Dr. Beebe: The patient presented today was a 54-year-old female whose illness began on the 8th of May, 24 days before her death. It is important to know the season of the year because of the infections to which she might have been exposed, which could have precipitated such a febrile illness. The onset, ten days before admission, was acute, with chills, fever persisting until death, an unproductive cough and diarrhea with 4 to 8 stools daily.

About two days before admission, confusion, lethargy, incontinence, sweats and soreness of the mouth occurred. Most of these symptoms continued until death.

Her past history was significant in that she had lived alone and had been on a relatively poor diet. She was moderately addicted to alcohol. Of her three pregnancies, there are no living children; ages and the causes of their deaths are unknown.

Lethargic

On admission, the patient's temperature was 101°F., her pulse was 98 and respirations were 30. She was obese, and there was no evidence of weight loss as one would expect had she been chronically ill. She was quite lethargic and it was difficult, though important, to ascertain whether her mental state was due to infection of the central nervous system, dehydration or to high fever. Her neck was stiff, thought to be of a voluntary nature as is often confusing, in which case a spinal puncture should be performed.

Her respirations were shallow and rapid. At the lung bases there were many coarse rales. The liver was enlarged 6 cm below the costal margin and the spleen was not palpable.

Possibly the enlarged liver resulted from dietary deficiency—a fatty stage of cirrhosis. In the presence of high fever her white count was only 3,750 and the differential count showed 7 bands, 70 polymorphonuclears and 23 leukocytes, nothing very unusual. The urine was positive for albumin and a few white blood cells. In spite of the diarrhea the stools were free of occult blood. Spinal fluid protein was 15 mg% which was in the lower limit of normal. There were 34 red cells in the spinal fluid possibly due to trauma. The spinal fluid sugar was 56 mg% which was within normal limits. The spinal fluid chloride was 123 ml/l and the Wassermann was negative. In the hospital her temperature ranged from 100 to 104 degrees, the lethargy and the confusion became worse. Ten blood cultures were sterile. Four urine cultures were sterile. There was no note as to whether special cultures for Brucella abortus were made. From the stools *Streptococcus fecalis* and *Escherichia coli* were cultured, neither of which is particularly pathogenic. No sputum could be obtained and studies of gastric washings are not reported.

Apparently one of the most dreaded of the bacteria causing diarrhea, *Staphylococcus aureus,* was not found in the cultures. Agglutinations for typhoid fever, paratyphoid fever, tularemia were all negative as was the heterophile antibody agglutination and the cold agglutinin titer. No note was made of Rocky Mountain spotted fever agglutination which should be included in a study of all febrile illnesses.

She received chloromycetin, 250 milligrams every four hours, a dosage sometimes inadequate to treat rickettsial infections or typhoid fever, but adequate for the majority of conditions in which chloromycetin might be effective.

Aplastic anemia

On the fourteenth day several "rose spots" appeared on her abdomen. This observation would arouse some suspicion of typhoid fever; however, rose spots in typhoid fever appear as a rule in the first week or ten days.

The bone marrow was hypoplastic and suggestive of aplastic anemia or aleukemic leukemia. X-rays of the chest showed haziness at the lung bases. The film, taken on May 8, was about the time the patient entered the hospital. The interpreter felt that the findings were due to the very heavy soft tissue shadows which existed in this obese female. As for subsequent films, I do not think there is any point in showing them all; they are mostly portable films, and not satisfactory for detail.

As her condition became worse achromycin was started, and chloromycetin continued, without apparent benefit. She remained disoriented, nasogastric tube feedings were instituted, in addition to intravenous

glucose and vitamins. Two days before death her white count was reduced to 2,500 per cu mm. The hemoglobin fell from normal to 9.5 gm, hematocrit from normal to 32% and she died 14 days after admission.

Fever

This patient presented a variety of findings. The continuous fever gives us about the best clue. "Shaking" chills are not too significant as they do occur when there is invasion in the blood stream by bacteria, sometimes without septicemia. Chills, too, accompany many acute and chronic conditions not associated with infection, as for example, hemorrhage. To help in arriving at a diagnosis, let us follow a broad classification of diseases which produce fever.

- Fever associated with leukocytosis.
- Fever associated with leukopenia.
- Fever associated with skin lesions, i.e., viral and rickettsial diseases, bacterial endocarditis, collagen disturbance, tuberculosis, lymphomata and blood dyscrasias.
- Fever associated with pharyngeal lesions which would include the common pyogenic organisms as well as syphilis, mononucleosis, tuberculosis, leukemia and agranulocytosis.
- Fever associated with arthritis. In this group we would include gonorrhea, brucella mellitensis, Reiter's syndrome, tuberculosis, rheumatic fever, sickle cell anemia and again the collagen disorders.
- Fever in the presence of lymph node enlargement, such as tuberculosis, mononucleosis, tularemia, cat scratch disease, the lymphoma group and leukemia.
- Fever accompanied by diarrhea. This group would include the salmonella and dysentery organisms, parasites, as well as tuberculosis and numerous other conditions.

Collagen

Thus, we are confronted by a problem involving fever, leukopenia, diarrhea, skin lesions, symptoms referable to the central nervous system and the lungs. We must think now of a few diseases which involve so many areas.

Polyarteritis has to be considered whenever multiple systems are involved, but the course here was too acute for most collagen diseases which are relatively chronic, sometimes with remissions. Death rarely occurs within 24 days, as happened here.

Rocky Mountain spotted fever at this time of year would be quite uncommon and is usually associated with an extensive skin rash, not just a few macular spots.

Brucella abortus is always a possibility, but agglutination tests were negative, also the blood and urine cultures were sterile. Hodgkin's disease rarely runs such a rapid course.

Typhoid fever can be ruled out primarily because of the character of her illness. In typhoid fever it would be unlikely not to obtain a positive culture of blood, stool or urine, and here satisfactory studies were made. I think that the absence of positive cultures, the absence of positive agglutinins, the absence of bleeding with the diarrhea, the belated appearance of rose spots as well as the absence of any exposure would be a little against typhoid fever.

Subacute bacterial endocarditis should be considered, although here again there are no clinical signs to warrant making this diagnosis. Aleukemic leukemia must be mentioned because of the bone marrow studies and the falling white count, but there usually is a triad in aleukemic leukemia: 1) anemia, 2) leukopenia and 3) bleeding gums or other evidences of leukemia. The same may be said of most of the patients with aplastic anemia, so I doubt this was aleukemic leukemia. The hematological abnormalities presented by this patient can develop in the presence of a poorly balanced diet associated with overwhelming infection when there may develop a marked leukopenia. And the picture is often confused with aplastic anemia.

Tuberculosis

We have hurriedly covered many of the conditions which can cause fever and tried to divide them down into groups associated with laboratory and clinical findings. To quote from Dowling,[1] "Any patient with high fever without definite localizing symptoms and signs, or definite indications of other disease should be suspected of having acute miliary tuberculosis."

Now think back to the classification of fevers that we have just mentioned, and you will find that tuberculosis can be present in all of the seven groups. So we have this one disease, miliary tuberculosis, that would account for the fever, chills, diarrhea, cough, mental confusion, sore mouth and sweats.

Possible diagnosis

In the study of patients with unexplained fever the problem of miliary tuberculosis confronts us frequently on ward rounds. It is important to remember death may intervene before miliary nodules are large enough to be seen by x-ray, the sputum and gastric contents may show no tubercle bacilli and the tuberculin test will often be negative. When this diagnosis is a possibility it is sometimes advisable to institute antibiotic therapy while continuing studies for other diseases. Antituberculous drugs will not mask these conditions.

In concluding, I will make a diagnosis of miliary tuberculosis, despite the apparent absence of tuberculous nodules in the x-ray, as well

1. Dowling, Harry F., *The Acute Bacterial Diseases*, Philadelphia, W. B. Saunders, 1948.

as the inability to find tubercle bacilli in the sputum and gastric contents prior to the patient's death.

Forty-four students submitted diagnoses as follows:

Nine—Typhoid fever

Twenty-three — Miliary tuberculosis

Four—Hodgkin's disease

Two—Pernicious anemia

Two—Aleukemic leukemia

One—Rocky Mountain spotted fever

One—Typhus fever

Two—Infectious mononucleosis

Pathological findings

Discussant: Arthur A. Stein, M.D., Associate Professor of Pathology, Albany Medical College, Albany, New York.

Dr. Stein: Necropsy on the body of this 54-year-old white, obese woman was performed seven hours after death. The major pathology was found in the lungs. The right lung weighed 890 gm; the left lung 990 gm. The pleural surfaces were moist and smooth except for a few posterior fibrous adhesions on the left. On careful inspection there were multiple scattered subpleural yellowish firm nodules approximately 0.2 cm in diameter.

The cut surfaces of both lower lobes and the right middle lobe were intensely congested, wet, grayish-red and again revealed diffuse "peppering" of the parenchyma by these yellowish foci of consolidation 0.1 to 0.3 cm in diameter.

On dissection the bronchi revealed marked mucosal congestion and they were filled with much frothy fluid. Careful microscopic study of these organs revealed diffuse tuberculous bronchitis and confluent bronchopneumonia. The alveoli were filled with protein rich fluid, neutrophiles and macrophages (*Fig. 1*) all of which were undergoing caseous necrosis.

In some situations a few Langhans type giant cells were present. In some zones, the blood vessels, both arteries and veins were involved by the inflammatory process. Almost half the circumference of one vessel was totally necrotic and infiltrated by neutrophiles, few plasma cells, macrophages and an occasional giant cell (*Fig. 2*).

In other situations caseous material was attached to the intimal surface of veins. The bronchial walls were also involved by this caseous granulomatous process. The small discrete yellowish foci of consolidation proved to be clusters of discrete or conglomerate anatomic tubercles. Special stains revealed large numbers of acid fast bacilli in all these inflamed sites. This widespread process through the lungs indicated both bronchogenic and hematogenous dissemination. Furthermore, the lungs were the obvious site of hematogenous dissemination to other viscera. The hilar lymph nodes were also involved in this specific inflammatory process.

Histologically, miliary dissemina-

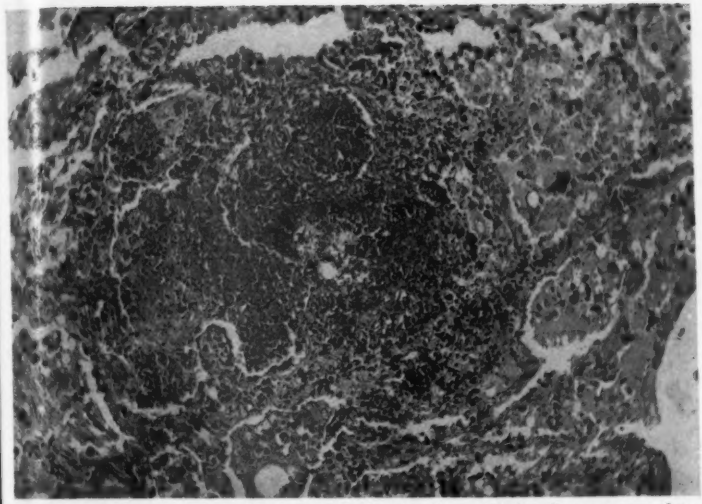


Figure 1. In tuberculous bronchopneumonia the alveoli are filled with caseous exudate.

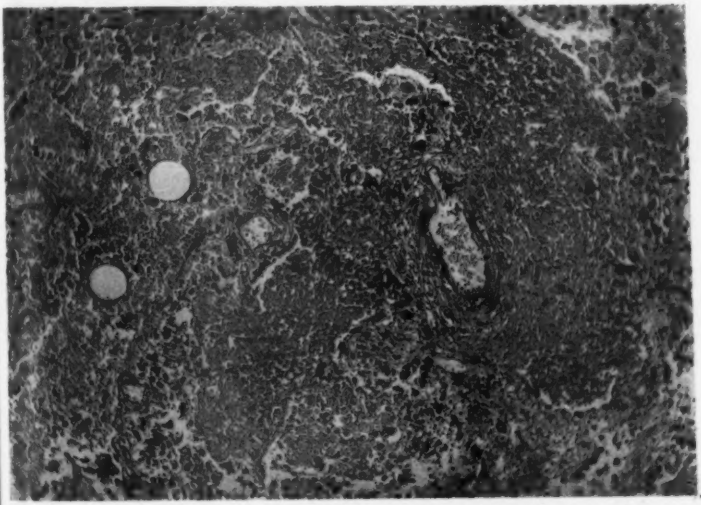


Figure 2. A pulmonary artery is involved by the tuberculous inflammatory process.

tion to the liver, spleen, kidneys and adrenals was also verified. In the liver the granulomata were found primarily in the portal triads. The hepatic parenchyma was congested and showed diffuse fatty metamorphosis (*Fig. 3*).

In the adrenal glands multiple miliary and conglomerate caseous tubercles were observed in the cortex (*Fig. 4*).

In the kidneys the lesions were most common in the cortico-medullary region. Although the brain was congested and edematous there was no histologic evidence of tuberculous involvement.

Death of this patient was due to bilateral tuberculous broncho-pneumonia with widespread hematogenous miliary dissemination.

ANATOMIC DIAGNOSES:

Miliary tuberculosis, generalized;

Bronchopneumonia, tuberculous, bilateral, with miliary spread to adrenals, liver, spleen, kidneys; Congestion and edema, acute, of brain; Fatty metamorphosis, of liver.

Final discussion

Discussant: Charles A. Hall, M.D., Assistant Professor of Medicine, Albany Medical College, and Director of Hematology, Albany Veterans Administration Hospital, Albany, New York.

Dr. Hall: There are two ways here in which the bone marrow studies and the blood studies might have led one astray, and apparently from the students' reports they did lead a considerable number of people astray. Let us first consider the megaloblasts. Whoever made the diagnosis of pernicious anemia is quite right in the sense that megaloblasts are usually associated with pernicious anemia, and certain other anemias such as that of sprue and the related group of malabsorption syndromes. It is not true, however, that megaloblasts are restricted solely to these conditions.

Occasionally in a variety of other hematologic disorders we do see megaloblastosis which is usually of a minor degree as it was in this case. The bone marrow as a whole did not resemble that of pernicious anemia and, of course, clinically I do not think there is a great deal here to suggest pernicious anemia.

There was also the possibility of an aleukemic leukemia. It might seem that a diagnosis of leukemia is a very simple one to make from the bone marrow. Sometimes it is not, particularly early aleukemic acute leukemia. There was some immaturity of the granulocytic series in this marrow which led to a possible diagnosis of leukemia. Usually when a patient is in a terminal stage of leukemia one can easily make the diagnosis. Certainly, the clinical course of this patient was not suggestive of an early leukemia. I should also mention that obviously the chloromycetin had nothing to do with this patient's leukopenia since the leukopenia antedated the giving of the chloromycetin.

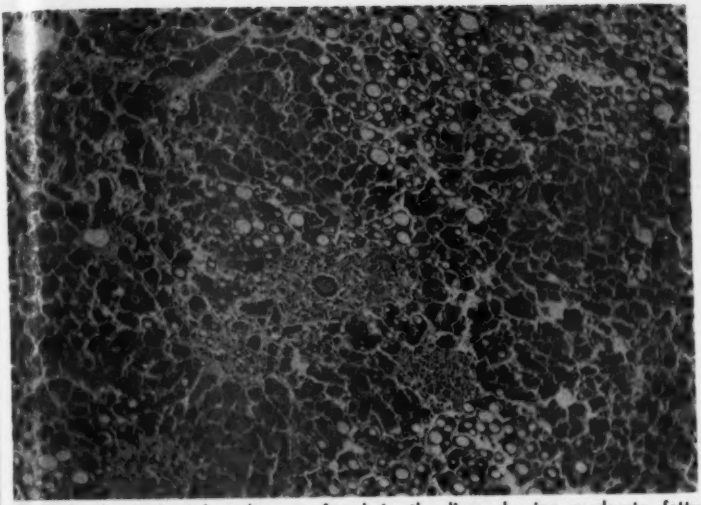


Figure 3. Anatomic tubercules are found in the liver showing moderate fatty metamorphosis.

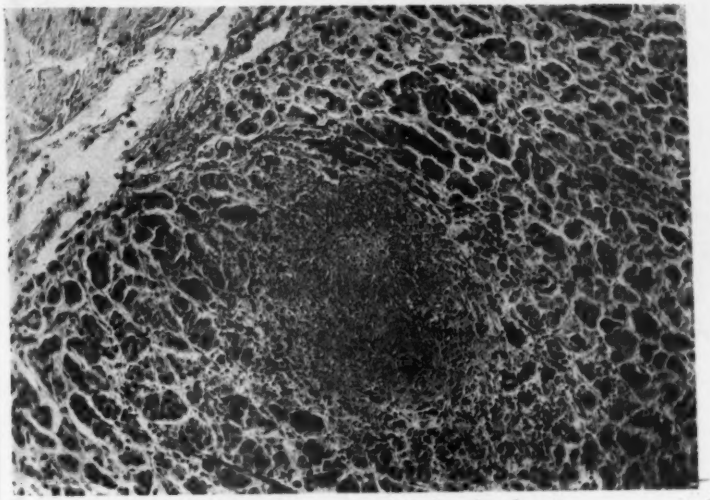
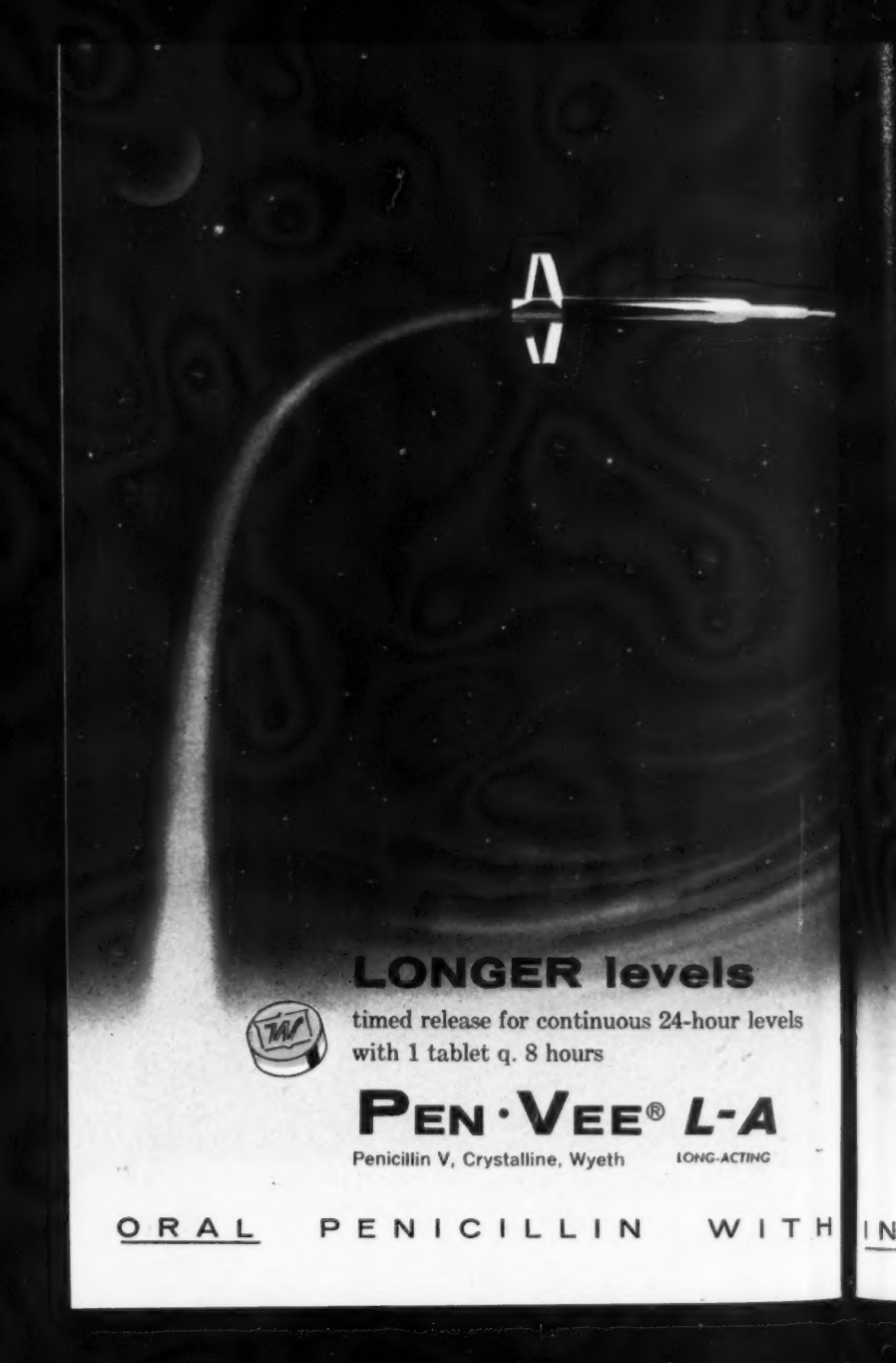


Figure 4. Caseous foci are present in the adrenal cortex.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INJECTION PERFORMANCE

Pulmonary tuberculosis

The blood and bone marrow findings of tuberculosis are very interesting. As you know, a great deal has been written about the blood findings in pulmonary tuberculosis. The abnormalities are minor, nonspecific and I will say nothing more about them. The findings in a generalized tuberculosis are much more pronounced, and are usually associated with tuberculosis involving the hemopoietic system. The blood changes may range all the way from a pancytopenia to a leukemoid reaction, in other words almost any abnormality can be found. A cytopenia is the most common finding, and it may involve all three cell series, the red cells, the granulocytes and the platelets or it may be confined only to a leukopenia.

This patient had primarily a leukopenia. Occasionally leukemoid reactions have been observed. Sometimes, especially terminally, immature cells of both the red cell and the granulocytic series have been seen in the peripheral blood. In one series of cases in the literature, all of the patients had macrocytosis. Again these changes are entirely nonspecific, but interesting.

Bone marrow

The bone marrow is involved in a large number of patients with miliary tuberculosis. In one autopsy series, 33 out of 37 patients had miliary tubercles in the marrow. On aspiration the marrow is often hypoplastic. This, I think, is the most common finding. It is not an aplastic marrow or a markedly reduced marrow, but in general a somewhat hypocellular marrow which was the case in this particular patient we are discussing. In one case that I was able to find in the literature the diagnosis of leukemia was held up until the time that the patient died.

It is interesting to speculate why these patients get such profound disturbances in the blood and bone marrow with generalized tuberculosis. One possibility may be the effect of the tuberculosis on the marrow itself. I am not thinking as much of the crowding out of normal marrow, but of the competition for substances that are needed for normal cell growth. Of course, in generalized tuberculosis there is a widespread infection and it may be that the toxic effect from this infection causes blood changes. Then, too, we must consider what effect disease of the spleen may have. Almost all of the patients have tuberculosis of the spleen and perhaps some of the blood changes are secondary to splenomegaly.

At the present time in Veterans Hospital we have a patient with miliary tuberculosis whose hematologic findings are almost identical with this patient's. The leukopenia is slightly more severe, and this patient also had a few megaloblasts in his marrow.

The marrow may help one in making the diagnosis of miliary

tuberculosis. Obviously none of these changes in either the blood or the marrow that I discussed are at all specific, and certainly would not lead one to the diagnosis of miliary tuberculosis, although everyone should be aware that such changes can occur with miliary tuberculosis. The marrow being frequently involved, it is often a good source from which to make smears for acid fast bacilli and in many instances tuberculosis has been demonstrated by this means. One may also culture the bone marrow.

This has the disadvantage of being a rather slow means of diagnosis since one may have to wait weeks for the culture to grow and by the time the culture becomes positive the patient may be dead. A third approach is to make a section of the marrow. One is unlikely to pick up a granulomatous lesion in the ordinary marrow aspirate because the tissue is distorted by smearing. If one takes a section of marrow—a marrow biopsy—there is a fairly good chance of showing the lesions.

Liver biopsy

Liver biopsy is another good approach to the diagnosis of miliary tuberculosis. As you saw in this case, the liver was rather heavily involved. Even if the liver is not obviously involved and one does suspect miliary tuberculosis, it is worthwhile attempting a biopsy, because the incidence of involvement of liver is very high in this disease. If there is an enlarged liver, or if there are signs of liver malfunction, there is an excellent possibility of making the diagnosis before there is any bacteriologic confirmation.

Anacomical

While I was assisting in the emergency room during my fourth year of medical school, a young woman was brought in suffering from a stab wound.

The resident asked her how it happened and she told him that she and her boyfriend had been assaulted by a "third party."

The resident then inquired: "Well, wasn't your boyfriend stabbed in the fracas?"

She replied, "Oh no, Doctor; he was stabbed *between* the bellybutton and the fracas!"

P. C., M.D.
New York, N. Y.

ONE OF A SERIES
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Through its continuing program of expansion, this center of education and research is able to provide modern medical care facilities and individualized training for 150 residents, interns and fellows.

Albany Medical Center

One of the largest medical centers in the nation, the Albany Medical Center consists of the 670 bed Albany Hospital, Albany Medical College, and the Albany Medical Center School of Nursing.

Within a few hundred yards of this nucleus are the 1005 bed Albany Veterans Administration Hospital, the central laboratories of the New York State Department of Health, and the Albany College of Pharmacy. A close relationship exists between all units of this integrated health center which serves 16 counties of northeastern New York State as well as areas of Massachusetts, Connecticut and Vermont.

The 70 bed Anthony N. Brady Maternity Hospital is also associated with the Center and is a valuable adjunct to the resident training program in Obstetrics. This brings a total of 1745 beds within or affiliated with the Center.

In addition, there are a number of community agencies associated with the Center which have important roles in certain residency training programs. One such specialty clinic is the Child Guidance Center for the treatment of children with psychiatric and neurotic illnesses. Other affiliations include the Study Center for Learning Disabilities, the Cerebral Palsy Center and the Northeastern New York Speech Center.

The Albany Hospital maintains services in all the specialties including tuberculosis, mental and communicable diseases. The autopsy percentage for last year was 66%.

Development

The founding of the Hospital in 1849 and the Medical College, one

Brain pathology session at Albany Hospital.

of the colleges of Union University, in 1839 provided a solid foundation on which faculty and program have been developed into the present Medical Center.

To a great extent the Center owes its very being to the energetic Dr. Alden March (1795-1869), one of the foremost surgeons and educators of his time. It was through his leadership and tireless devotion that the need for medical education and for a Medical Center in the Albany area was recognized. In its responsibility for growth in medical knowledge, the Center holds to the ideals of its founder: "The value of our pursuits . . . can be estimated only by the value of life itself, and of that which alone endears it to its possessor—health."

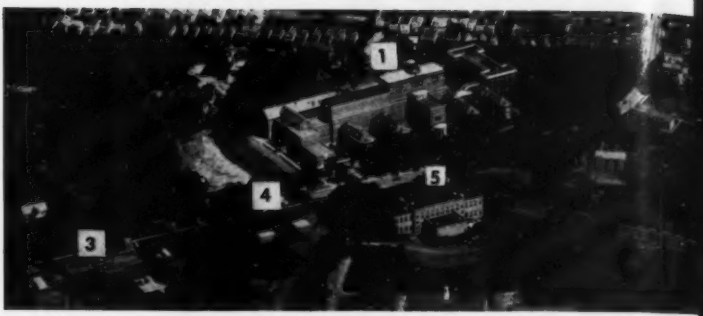
In 1902 the Albany Hospital had the distinction of being the first in the country to establish psychiatric wards as an integral part of a teaching hospital.

Maintaining the Center's plan of leadership through modernization, a multi-million dollar construction program, begun in 1957, will provide an additional 135 beds, classrooms, laboratories, nurses residence and x-ray and physical therapy units.

As the governing boards of the Center have indicated: "Every possible effort is made to provide maximum assistance to the doctor in caring for his patient."

Residency programs

In general, the residencies are organized to allow the greatest benefit from the particular facilities and special features of the Albany Medical College, Albany Hospital and affiliated institutions. They are intended to offer the individual resident, as he progresses, latitude in pursuing his own special interest, both with regard to a general field and with respect to emphasis on either the clinical or the investigative



approach. Particular attention is paid to making his experience progressive, with responsibility increasing as the trainee's ability grows.

Veterans

The Albany Veterans Administration Hospital, a modern general hospital, serves approximately 826 general medical and surgical, 134 psychiatric and neurological and 45 tuberculosis patients. The residency activities and appointments of the Veterans Administration Hospital are supervised by the Dean's Committee of Albany Medical College.

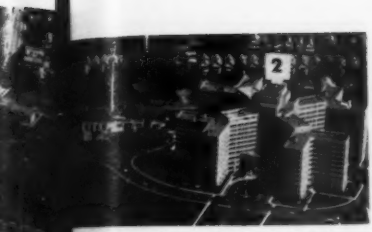
In addition to the extensive clinical laboratories, the hospital has a well equipped general research laboratory which has been developed to encourage and support research projects of the hospital staff.

All members of the house staff of the two hospitals are appointed members of the teaching faculty of the Medical College. These appointments emphasize the educational character of their position and widen the possibilities for research and special studies. The resident is in charge of the particular service to which he is assigned under the supervision of the chief of service and staff members. He has under his own supervision the interns and medical students assigned to the service.

Patient care

In the Medical Center, paying patients are also used for teaching; the resident is expected to take the forefront in medical care for all patients assigned to him. This is accomplished with the full support of the responsible attending physician.

Residents plan for accurate workups for the patients, arrange for proper consultations and personally supervise the care of the patients. Staff physicians encourage rapport between the residents and their patients—in effect, the resident is the "associate" of the staff physician in



ove is the Albany VA Hospital (2), and left are Albany Medical Center (1), w York State Health Department Lab-atories (3), Albany College of Phar-acy (4), and Albany Law School (5).

the care of his patients. By including private patients in the teaching program, the house staff members are able to become familiar with the problems of patients with varied social and economic backgrounds similar to those they will later meet in private practice.

Internship

A well balanced, twelve-month general rotating internship is offered. This serves as a broad basic training for those who later elect to go into general practice or into one of the specialties. In addition, twelve-month straight internships are available in dentistry, medicine and surgery for those who desire to specialize during their internship.

Accredited

Both hospitals are fully accredited by the Joint Commission on Accreditation. Residencies are approved by the Council on Medical Education and Hospitals of the American

Lung capacity being determined prior to surgery.

Medical Association and the appropriate specialty boards. Appointments are generally effective July 1st of each year, although exceptions are made.

Attending staff

The educational program at the Medical Center has been instrumental in attracting high caliber, full-time instructors, as well as part-time instructors and fellows in specialized fields. The chairmen of the clinical departments in the Medical College are the chiefs of the corresponding service departments in the Albany Hospital—most of these are full-time men.

A group of full-time physicians supervises the residency training and the patient care at the Veterans Administration Hospital.

All of these teachers have appointments in the Medical College.

Both hospitals, of course, have a very active group of attending physicians and consultants, who are members of the Medical College Teaching Staff and are board certified. Since the two hospitals together represent a major referral center for a large surrounding area, experience is gained in the management of acutely ill patients and in a wide variety of diagnostic problems.

The newcomer is often quick to remark that he gets the feeling that big things are developing at the Medical Center. According to administrators, this is a contagious reaction which results from a "dynamic approach" to medicine engendered by the Medical Center staff.

Albany Medical Center

Residents	81
Interns	43
Fellows	25
Attending Staff	268
Medical Students	230

Educational

Over and above the teaching opportunities in connection with the daily rounds on each service ward, there are almost daily teaching conferences of various sorts. A free interchange of personnel between the two hospitals occurs at these conferences. According to the Medical Director of the Albany Hospital, Dr. Ferdinand Haase, Jr., "We see our responsibility to train not only young physicians but to also provide the stimulus by which the attending staff advances its own medical knowledge."

Conference content includes didactic medical presentations on a variety of subjects; presentation and discussion of available clinical material; clinical pathological conferences and medical pathological discussions; lectures in pertinent related fields; and courses of instruction in electrocardiographic interpretation, x-ray interpretation, fluoroscopy, and others.

The over-all educational program

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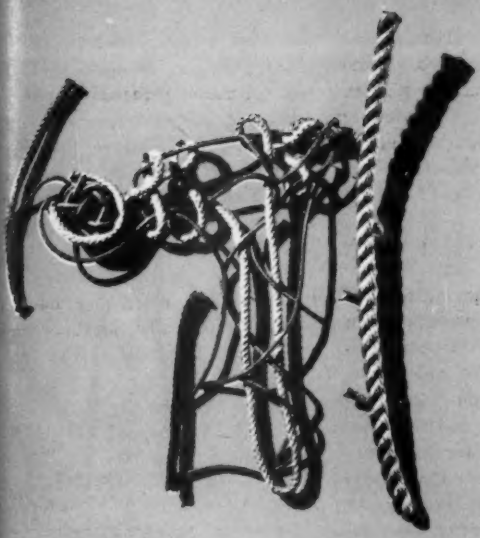

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"A DISEASE OF THE TUBULES"[1] as well as the glomeruli. In pyelonephritis, "the tubules suffer from damage to their lining cells which show cloudy swelling, granular degeneration and diminution in size. Inflammatory cells and colloid casts are found in the lumen of the tubules. . . . The glomeruli remain normal over a long period."[1]

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References: 1. Smith, I. M., and Lenyo, L.: Am. Practitioner 9:75, 1958. 2. Waisbren, B. A., and Crowley, W.: A.M.A. Arch. Int. M. 99:653, 1956.

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is under the guidance of the House Staff Education Committee of the Medical Board. This Committee constantly scrutinizes the residency program to assure that the educational needs of the resident are met while he is at the Albany Medical Center.

Research

Research is an integral part of the Medical Center's program, with a wide range of projects being conducted in many fields of importance. For example, studies on circulation, cancer, liver cirrhosis and the toxic action of bromides are currently under way. Investigators are able to draw on the many resources of the Center, lending depth and diversity in approach. Residents are encouraged to initiate a program of research in the direction of their special interests.

Since 1949, encouraging progress has been made in the development of plastic valve implants for the aortic and mitral areas of the heart. The Cardiovascular Health Center, a long term study for the early detection of degenerative cardiovascular diseases, and the Cardio-Pulmonary Function Laboratory are programs in which diagnosis and research are carried on concurrently.

A fluoroscopic image intensifier is being developed by the Medical Electronics Department which will enable fluoroscopy to be carried on in lighted rooms under reduced x-ray beam current; this apparatus will have remote viewing and high speed photographic application. The medical use of xeroradiography was developed and perfected by the Department of Radiology of the Albany Hospital in cooperation with the New York State Commissioner of Health. Xeroradiography is a totally new method of recording x-ray images, which admirably lends itself to use in the emergency hospitals being strategically located across the country for disasters and atomic warfare.

Liaison between the Medical Center, the V. A. Hospital and the New York State Laboratory on research enlarges the sphere of this activity

Stipend and Maintenance

Interns	**$1800**
1st. Yr. Ass't. Residents	**$1920**
2nd. Yr. Ass't. Residents	**$2220**
3rd. & 4th. Yr. Ass't. Residents	**$2340**
Resident	**$2520**

Married men of the house staff receive an additional $300 a year. Uniforms, laundry and hospitalization are provided; meal allowance is included in the stipend. A two-week vacation with stipend is granted.

Blue Cross and Blue Shield is available. The Hospital has malpractice insurance which covers every member of the house staff.

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*Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

ALBANY MEDICAL CENTER

Regularly Scheduled Rounds and Conferences

There are other teaching rounds and discussions which are not listed here.

MONDAY

8:00 A.M.	Pediatric Teaching Rounds. 6th floor.
8:00 A.M.	Orthopedic Teaching Rounds. Albany & V.A. Hospitals.
9:00 A.M.	Neurosurgical Teaching Rounds.
10:00 A.M.	Medical Teaching Rounds.
10:00 A.M.	Tumor Rounds—All Wards.
12:00 Noon	E. C. G. Conference.
12:00 Noon	Pediatric, Neurology and Psychiatry Noon Clinic—Huyck Auditorium.
1:00 P.M.	Lectures in General Psychiatry.
1:00 P.M.	Medical—Obstetrical Clinic.
2:00 P.M.	Clinical Endocrinology Conference. V. A. Hospital.
4:00 P.M.	Pediatric Death Conference and Record Meeting.
4:00 P.M.	Radiological Departmental Conference.

TUESDAY

8:00 A.M.	Pediatric Teaching Rounds. 6th floor.
8:30 A.M.	Clinico-Pathologic Conference. Twice monthly.
10:00 A.M.	Medical Teaching Rounds.
10:00 A.M.	Psychiatric Diagnostic Conference.
10:30 A.M.	Obstetrical Teaching Session.
12:00 Noon	Medical Conference.
1:30 P.M.	Neurological Seminar. Albany V. A. Hospital.
2:00 P.M.	Psychiatry Case Presentations.
3:30 P.M.	Neurosurgery—Neurology Conference.
4:00 P.M.	Obstetrical—Gynecological Staff Conference. 2nd Tuesday each month.
4:00 P.M.	Surgical Chart Rounds and Surgical Teaching Rounds.
5:00 P.M.	Psychiatry—Psychosomatic Case Presentation, 3rd Tuesday each month.
7:00 P.M.	Surgical Anatomy Course—Weekly for 32 weeks.
8:00 P.M.	Psychiatry Journal Club. 1st Tuesday each month.

WEDNESDAY

8:00 A.M.	Fracture Conference.
8:00 A.M.	Pediatric Teaching Rounds. 6th floor.
9:00 A.M.	Clinical Cardiology Conference. V. A. Hospital.

9:30 A.M. Neurology Grand Rounds.
10:00 A.M. Medical Teaching Rounds.
10:30 A.M. Clinical Chest Disease Conference.
11:15 A.M. Endocrinology Teaching Conference.
12:00 Noon Combined Obstetrical—Pediatric Conference. 3rd Wednesday each month.
12:00 Noon Conference on Medical Pathology.
12:00 Noon Pediatric Staff Conference, Dep't of Pediatrics. 6th floor.
12:00 Noon Surgical Clinic.
1:00 P.M. Psychiatry Seminar.
1:00 P.M. Dystocia Clinic.
1:00 P.M. Obstetrical—Gynecological Pathology Conference.
4:00 P.M. Pediatric Clinical Pathology Conference.
4:00 P.M. Surgical Pathology Conference.
8:00 P.M. Surgery Journal Club. Last Wednesday each month.
8:15 P.M. Monthly Surgical Conference.

THURSDAY

8:00 A.M. Gynecological Staff Conference.
8:00 A.M. Pediatric Teaching Rounds. 6th floor.
8:00 A.M. Surgical Grand Rounds.
9:00 A.M. Medical Staff Conference.
9:00 A.M. Surgical Teaching Rounds.
10:00 A.M. Medical Conference.
10:00 A.M. Tumor Rounds—All Wards Case Discussions.
10:30 A.M. Chest Conference.
10:30 A.M. Obstetrical Staff Conference. Brady Hospital.
10:30 A.M. Obstetrical Teaching Session.
11:00 A.M. Psychiatric Case Presentations.
12:00 Noon Medical Clinical Pathology Conference.
2:00 P.M. Post-Graduate Courses.
4:00 P.M. Neurological—Neurosurgical Conference. Archambault. Room K-402.
4:00 P.M. Pediatric House Staff Examination and Discussion Group.

FRIDAY

8:00 A.M. Orthopedic Conference.
8:00 A.M. Pediatric Teaching Rounds. 6th floor.
9:00 A.M. Medical Teaching Rounds.
10:00 A.M. Psychiatry—Somatic Therapy Conference.
10:30 A.M. Medical Case Presentation.
12:00 Noon Basic Science Seminars—1st and 3rd Friday each month.
12:00 Noon Tumor Clinic Conference. 2nd, 4th and 5th Friday each month.
1:00 P.M. Basic Psychiatric Reading Seminar.
1:00 P.M. Obstetrical—Gynecological Pathology Conference.
3:00 P.M. Obstetrics and Gynecology Grand Rounds.
4:00 P.M. Chest Conference. 2nd and 4th Friday each month.
4:00 P.M. Radiology Conference. 1st, 3rd and 5th Friday each month.
4:00 P.M. Pediatric Conference. 6th Floor.
4:30 P.M. Conference on Neuro-ophthalmology. Archambault Room K-402.

and, through its advanced technology and methodology, enables the house staff to gain assistance in difficult diagnostic problems.

Graduate study

A graduate study program leading to a Ph.D. degree is offered by the Medical College to those who are interested in a career of teaching and investigation in the basic medical sciences, such as anatomy, physiology, biochemistry, microbiology, pathology and pharmacology. The student not only has the opportunity to devote considerable time to the technique and philosophy of effective teaching, but also to explore fully the fundamental aspects and the clinical implications of his field of study.

As a part of this program the Medical College offers a combined Ph.D.-M.D. curriculum allowing the research-minded medical student to go beyond academic medicine into an investigative field of his choice.

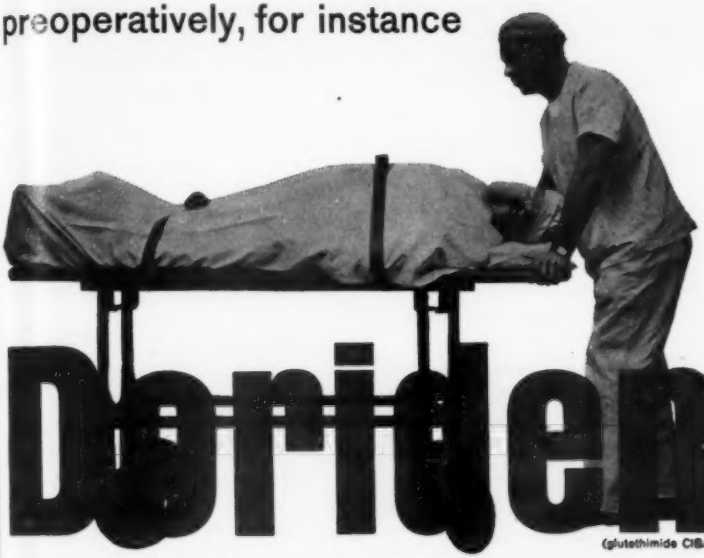
Advanced courses in specialty research fields are open to members of the house staff enabling them to gather further information on a topic of interest.

Fellowships

Fellowship opportunities, supported by various grants, are available and involve both clinical and investigative phases. Of great importance to the resident are the outstanding staff and fellowship programs in the major subspecialty departments including hematology,

Dr. E. V. Crahill researches the effects of circulatory changes on hair growth.

Less restricted* sedation . . . preoperatively, for instance



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"One hour prior to surgery, twenty-five patients were given one-half to one gram of Doriden. Ten of the twenty-five patients slept on the stretcher while waiting to be wheeled into the operating room. . . . the remaining patients seemed to have the calm indifference that is found in partially narcotized patients. There was no respiratory depression. The drug provided very satisfactory preoperative sedation."[1]

*SEDATION WITH DORIDEN IS LESS RESTRICTED because, unlike barbiturates, it is not contraindicated where renal and hepatic disorders are present; unlike many barbiturates, Doriden rarely causes pre-excitation; unlike barbiturates traditionally used for sedation, Doriden is metabolized quickly, thus rarely produces "hangover" and "fog."

SUPPLIED: TABLETS, 0.125 Gm., 0.25 Gm. and 0.5 Gm.

1. Matlin, E.: M. Times 84:68 (Jan.) 1956.

CIBA
SUMMIT, N. J.

endocrinology, cardiology, chest diseases, oncology, infectious diseases, and others. Fellowships may be counted for certain specialty board residency requirements.

Family care

Residents from several departments serve on the Faculty Advisory Committee of the Family Care Program. In this program, third year medical students assume the responsibility of serving as the family physician for a carefully selected family. This part of the Medical College curriculum permits the resident as well as the student to gain experience in both the social and home management aspects of illness.

Munir Jabbur, resident, gives reassurance to a young orthopedic patient.

Postgraduate

A valuable part of residency training includes participation in the extensive post graduate teaching sessions held weekly at the Medical College.

Albany serves as the center of an area having a radius of from 150 to 200 miles and containing a large number of practicing physicians. A Postgraduate Program developed for these physicians gives residents an opportunity to gain information concerning the solution of problems encountered in practice.

Radio and TV

The Medical College also contributes to residency training in other hospitals, one such contribution being a novel method of presentation, utilizing two-way radio communication, so that physicians in remote hospitals may direct questions to the Medical College faculty by radio and receive their answers immediately during a clinic presentation. Residents in these other hospitals have the same opportunity to participate in these teaching clinics.

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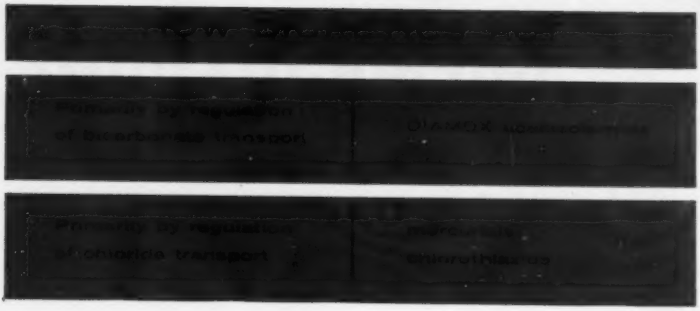

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Lederle

...IN BOTH BASIC DIURETIC REGIMENS

AMOX*

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1 **Advantages of DIAMOX in single-drug diuresis**

DIAMOX—operating through the well-understood mechanism of *bicarbonate* transport regulation—provides ample, prolonged diuresis in the great majority of patients.

DIAMOX is virtually nontoxic . . . has not caused renal or gastric irritation . . . has no pronounced effect on blood pressure. It is rapidly excreted, does not accumulate in the body, permits convenient dosage adjustment, allows unbroken sleep. Small, tasteless, easy-to-take tablets . . . usual dosage, only one a day.

2 **Advantages of DIAMOX in intensive, two-drug diuresis**

When intensive diuresis must be maintained, DIAMOX, alternated with an agent for regulation of *chloride* transport, has proved a regimen of choice. Through dual *bicarbonate-chloride* regulation, it produces maximal sodium-water excretion with minimal distortion of serum electrolyte patterns, greater patient comfort, lessened risk of induced drug resistance.

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PREMENSTRUAL TENSION

EDEMA OF PREGNANCY

OBESITY

ADVANCED CONGESTIVE HEART FAILURE

REFRACTORY TOXEMIA OF PREGNANCY

ALBANY HOSPITAL APPROVED RESIDENCIES

Service	Years	Residents	Chief of Service
Anesthesia	2*	10	Charles M. Landmesser
Medicine	3*	8	Richard T. Beebe
Neurology	3	3	Frederick H. Hesser
Neurosurgery	3	3	Robert D. Whitfield
Obstetrics & Gynecology	3*	7	Robert E. L. Nesbitt
Orthopedic Surgery	3	3	Crawford J. Campbell
Otolaryngology	3	3	Benjamin M. Volk
Pathology	4	6	Arthur W. Wright
Pediatrics	2*	5	Paul R. Patterson
Plastic Surgery	2	2	W. Brandon Macomber
Psychiatry	3	6	William L. Holt
Pulmonary Diseases	2	2	Frank C. Maxon, Jr.
Radiology	3	4	John F. Roach
Surgery	5	14	Charles Eckert
Thoracic Surgery†	2	2	Allan Stranahan
Urology	3	3	William A. Milner

**Additional year available* †*Approval pending*

---

miles. Obtaining information by two-way radio versus coming to the Medical Center has, during the past two years, saved these physicians more than 500,000 miles of travel which would have required approximately 17,000 travel hours.

Selected operations and demonstrations are easily visualized by use of closed-circuit television programming within the Medical Center.

Library

The Medical College library contains 28,190 volumes and receives 613 periodicals. In addition, departmental libraries also contain resource material for the resident.

Also, the services of the nearby New York State Medical Library, one of the most complete medical libraries in the world, are immediately available by twice daily courier service.

School of Nursing

The Albany Medical Center School of Nursing is one of the largest schools in the State with more than 250 students enrolled. Two classes, one in March and one in September, are admitted each year.

The Russell Sage College School

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'ANTEPAR' SYRUP
—Piperazine Citrate, 100 mg. per cc.

'ANTEPAR' TABLETS
—Piperazine Citrate, 250 or 500 mg., scored

'ANTEPAR' WAFERS
—Piperazine Phosphate, 500 mg.

Literature available on request

BURROUGHS WELLCOME & CO. (U. S. A.) INC., Tuckahoe, New York

of Nursing and the Albany Training School for Practical Nurses maintain the clinical aspects of their program at the Medical Center. Nursing programs call upon the resident and intern staff to augment the individualized floor instruction essential to comprehensive nurse education.

Clinics

The Albany Medical Center Clinics operate active outpatient services in all departments for medically indigent patients. Total clinic visits for the year 1957 were 28,520.

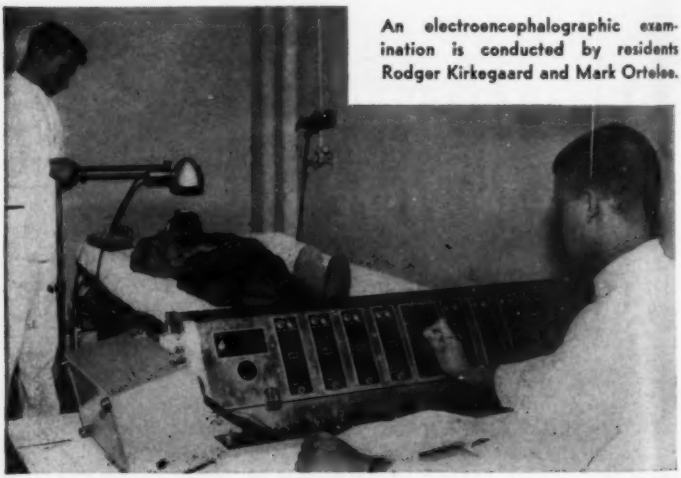
Residents assigned to the clinics supervise the intern staff and medical students and have an opportunity to follow patients who have been under their hospital care. Staff physicians participate in all clinics.

Emergency

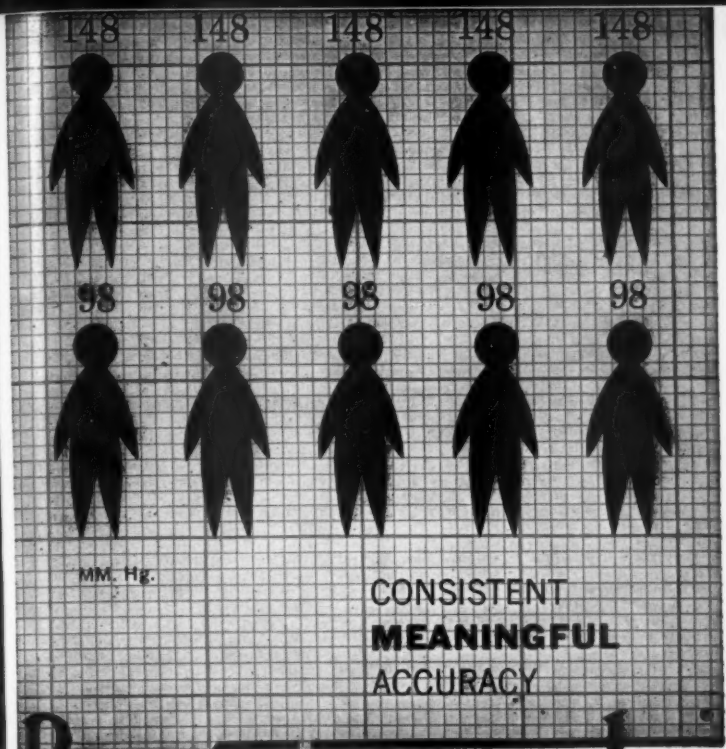
The emergency service covers 22,000 visits per year. Although under the direction of the Department of Surgery, residents from all services see Emergency Room patients whenever it is indicated that they be called.

Religious facilities

Services of various faiths are held in the hospital chapel, and within walking distance of the Center, churches of many denominations may be found. Chaplains representing the Protestant, Catholic and Jewish faiths are always available for patient or employee consultation.



An electroencephalographic examination is conducted by residents Rodger Kirkegaard and Mark Ortelee.



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Acquiring a bloodpressure instrument should be a serious undertaking, for you will be using it day after day on all your patients for many years. Why be satisfied with anything less than a Baumanometer.

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House staff association

The House Staff Association elects its own officers and provides representation on problems that come up during the year. Activities, such as outside guest speakers and social programs, are arranged by the Association.

Senior residents join in a monthly luncheon meeting with members of the administration and medical staff for discussion of the many aspects of the hospital's program.

Housing

Comfortable quarters are provided within the hospital for single persons. Married members of the house staff receiving the extra $300 a year bonus are provided with a bed when they are "on call." A limited number of apartments for rent are owned by the hospital. Other apartments at reasonable rents are generally easy to find. It is anticipated that more hospital-owned apartments will become available in the future.

Wives Club

The House Staff Wives Association helps the new house staff member and his family become acclimated to the Medical Center and acquainted with the Albany area. A special committee of the Association assists prospective interns and residents in locating suitable housing for their families.

Wives of residents seldom have difficulty in finding employment in the Center itself or the nearby business section of Albany.

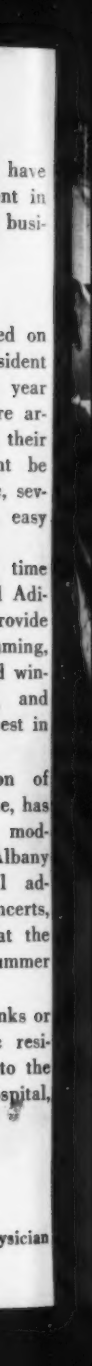
Recreation

Tennis courts are maintained on the grounds for use by the resident and intern staffs. During the year several picnics and outings are arranged for the residents and their families. Should the resident be lucky enough to find the time, several golf courses are within easy reach of the Center.

Within one hour's driving time from the Center, the beautiful Adirondacks and Thatcher Park provide excellent facilities for swimming, yachting, horseback riding and winter sports. Nearby hunting and fishing are rated among the best in America.

Albany, with a population of 140,000 and capital of the state, has a dry, healthful climate with moderate seasonal temperatures. Albany offers most of the cultural advantages, such as museums, concerts, and incidentally, is located at the hub of many of the State's summer stock companies.

Request for application blanks or more information on specific residencies should be addressed to the Medical Director, Albany Hospital, Albany 8, New York.



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PRE- & POST-OP

"PREMARIN" INTRAVENOUS has been used in practically every type of surgery. Given preoperatively it minimizes blood loss and helps clear the field of operation. Postoperatively, it prevents or quickly suppresses hemorrhage.[1-4]

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In more than 600 (6?) injections of "PREMARIN" INTRAVENOUS, not a single instance of toxicity or thrombus formation has been reported.

"PREMARIN" INTRAVENOUS (conjugated estrogens, equine) is supplied in packages containing one "Serum-Vial" providing 20 mg. and one 5 cc. vial sterile diluent with 0.5% phenol U.S.P.

1. Dees, J. E. and Dieter, Paul: Surgery, 22:273 (Aug.) 1947. 2. Rowe, J. T., Jr.: S. Clin. North America, 28:1 (Feb.) 1948. 3. Bowers, H. M. and Hopkins, P. C.: Am. J. Surg., 74:1 (July) 1947. 4. Krueger, H. C.: J.A.M.A. 130:1 (Sept. 11) 1945.

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Research in Nonuniversity Hospitals

Practical considerations are involved in the conduct of research projects in the nonacademic hospital. But artery banks, scintillation counters and other special equipment can be had by the smallest hospital when the decision is based on the welfare of patients—and when members of the community are apprised of the need.

Ralph Adams, M.D.

The Rhode Island Hospital has honored me with an invitation to discuss research in hospitals that are not academically connected.

Research is a word that has accumulated about itself much dynamic, emotional and static charge. Through it, the doors of the future are opened by occasional men of genius, successfully attacking basic problems and coming up with fundamental answers. About it, there revolves much verbal conflict and superficial animosities in expressions of the different interests of theoretical versus practical researchers. Unto it, there are gathered many hangers—on who are like static electricity in being noisy, bothersome and largely ineffectual.

Complementary

Let us face the question of conflict at once and be done with it and get on to more constructive considerations. The basic researcher is little concerned with the contribution his findings may make to any area of possible application; so long as they enlarge the total of known truth, he is fulfilling his assumed mission and presumably

fever, *discomfort*

under control

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achieving intellectual happiness as an individual.

By contrast, the applied medical investigator usually has in mind the fairly closely related improvement in patient welfare, which he believes that the successful solution of his investigation will accomplish. These two ends are collateral, not conflicting; they are complementary but not competitive.

Basic research may occur elsewhere, but in modern society is almost confined to special environments set up for its nourishment, and nearly essential for its survival and growth. Generally and logically, it exists as a component of a coordinated university.

Combination

Applied research is done where one finds it. Its product gains validity and firmness of texture from nearness to life as it is lived and fought. The nonuniversity hospital may be almost ideally situated in this respect, if it has the right combination of medical staff, administration and governing board.

The successful combination has innumerable variations, but there are three features which must always be present. There must be mutual respect among the three groups for competence in each group for the job which each is doing. There must be interest in constant improvement in medical and hospital service for the welfare of the patient, recognizing that control of cost is one essential ingredient. Each group must have energy, imagination and ability in forms and temperaments that can be accomplished.

On this background, and it exists in many nonacademically connected hospitals, as well as university hospitals across the United States, the motivated physician with ability, or a group of physicians, can carry on investigational projects constructively.

Ability in a physician has a very specific definition in my thinking. It is a combination of instinctive drive to give the patient the best possible service by a physician who is scrupulously honest, constantly hard-working, well-educated, and skillful in getting along with people. The program put on by this hospital staff this morning is an example of what I am talking about—well conceived, carefully executed, practical clinical studies of problems directly affecting the welfare of patients in Rhode Island Hospital, factually and analytically reported, and of value. All of these reports are concerned with some phase of empiricism, or stated differently and in the terms

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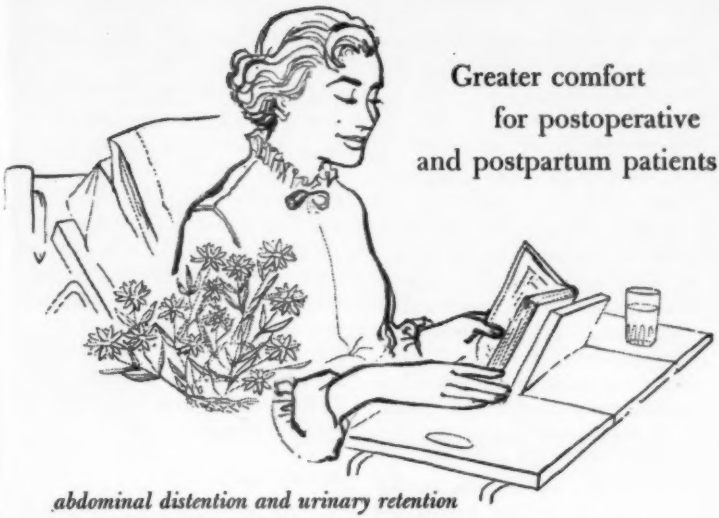
DR. ADAMS, Professor of Clinical Surgery, Boston University School of Medicine and Chief, Division of Surgery, Huggins Hospital, Wolfeboro, New Hampshire, read this paper before the Fifth Annual Rhode Island Hospital Research Day Meeting, Rhode Island Hospital, April 23, 1958.



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'Urecholine' helps restore normal function after surgery and childbirth by increasing the muscular tone of the gastrointestinal and urinary tracts. Postoperative "gas" pains can frequently be prevented or promptly relieved—with less need for uncomfortable enemas, intubation, and suction apparatus. Micturition is facilitated—without the discomfort and risk of infection inherent in catheterization.

Administration and dosage: may be given prophylactically or therapeutically after surgery or childbirth. Usual oral dosage: 10 to 30 mg. three or four times daily. Usual subcutaneous dosage: 5 mg. three or four times daily.

Other indications: gastric atony and retention following vagotomy and other surgical procedures; chronic functional urinary retention due to atony without obstruction; megacolon, including congenital megacolon (Hirschsprung's disease); certain cases of paralytic ileus; to counteract side effects of antihypertensive ganglionic blocking drugs.

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which all ideas that are to last, must sometime meet successfully: How does it work in practice?

Experience

A specification in my assignment, when asked by your director to give this address, was that I dwell upon practical considerations in getting investigational projects accomplished, and it was suggested that I use actual examples from practical experience. Probably this suggestion was made in the belief that generalizations would thus be reduced and factual data presentation increased. One can find much editorial comment between the lines of letters from his medical friends and colleagues, if he cares to look for it.

The little country hospital in which I work has 55 beds and is located in the lakeshore town of Wolfeboro, N. H., official population is 1500. Here, in outline form, are descriptions of four problems and how we have solved them.

TYPE PROJECT #1. *New equipment of previously undemonstrated local need: an artery and bone bank.*

Basic work done by Leriche, Carell and others nearly 50 years ago showed the sutured arteries would heal. Practical work done by Gross and colleagues showed that donor human arteries obtained at autopsy could be sterilized by Betatron radiation, stored in carbon dioxide ice temperatures, and successfully used as grafts in replacement of destroyed or defective human arteries. In 1951, when we wanted an artery bank, we were told that New York City had only one, and were asked if our request was not extreme. In reply, we had no argument with the statement regarding New York City, but pointed out that Wolfeboro, N. H., did not have any artery bank at all. At that time, there was no artery bank north of Boston, so far as I am aware. It was thoroughly impractical to try and maintain —50° Centigrade by use of solid carbon dioxide because of the distance from carbonic liquefaction plants.

Artery bank

A public spirited and financially competent individual was impressed enough with our zeal to provide $2500 for study of the problem, having first required and secured endorsement from our Board of Trustees. The Harris Refrigeration Company of Cambridge, Mass., collaborated both with us and with Dr. Charles Robertson of Massachusetts Memorial Hospitals, and developed and eventually delivered to the two institutions almost simultaneously a new type of low temperature, mechanically refrigerated box that provided then and still provides both institutions to this day with almost trouble-free mechanical refrigeration at —60° Centigrade. They used a refrigerant, new at the time, plus improved insulating and mechanical equipment to side-step use of the cascade principle which until then

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Gardner, J.: J. Pediat. 52:448 (Apr.) 1958.

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cream & lotion

IN SCABIES, CHIGGERS AND PEDICULOSIS

95% to 100% effective in 1 treatment — acts fast — non-irritating — nonstaining. ■

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was required for attaining and maintaining such low temperatures.

The box itself, after development, was then commercially available at around $1000. Our donor referred to the several people in the area with successfully grafted aorta replacements and salvaged extremities following traumatic arterial loss, as examples of the most rewarding investments of his lifetime. This equipment has been in constant use since its procurement.

TYPE PROJECT #2. *New equipment and improved diagnostic service of well-proved value, but not previously available in the area: radioisotopes and scintillation counters.*

Investment

Seven years ago, there was no facility for study of radioisotope absorption and excretion in or within 100 miles of our hospital. The need for this aid was obvious in the study of thyroid problems. A summer resident with an interest in community health of a feminine, personalized, and yet analytical type, agreed that she would enjoy paying for a scintillation counter. She promptly provided the $1700 requested. The reporter eventually contributed the additional $700 falling to his lot, because of original underestimation of the over-all cost, and radioisotopes have been used constantly in diagnosis by our staff since that time.

The same investment allowed extension to blood volume determinations, using radioiodinated human serum albumen. Likewise, liver function tests by way of Rose Bengal uptake became possible. Now, we have under study the determination of protein bound iodine simultaneously with the I^{131} thyroid uptake, from readings made on ion exchange resins through which blood plasma has been passed 24 hours after I^{131} administration. Such are the ramifications started by one donor who believed in us and in the hospital.

In reference to blood volume determinations, one must concede that two national philanthropic organizations did not believe in us when this test first gave clue to the dangerous clinical condition of borderline adrenal insufficiency. They courteously but definitely declined to support proposed studies, and we supported them privately. The rewards of persistence were to us sufficient in that we believe three patients are alive who would not have survived, except from therapy made available because of lessons learned in these studies.

Editors of scientific medical journals differ from this attitude, in my opinion, in that they look rather factually upon evidence submitted for publication in their media, and appear to care little whether the authors are famous or unknown, if the data and conclusions seem valid.

Advantage

They have the advantage of hindsight over the fund-granting agen-

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cies who must venture opinions as to whether proposed projects will develop in such a way as to prove subsequently that the agency acted wisely in supporting them. It is not unnatural for the unknown physician from the small hospital without university connections to feel that the announced abundance of research funds are destined for men of reputation and institutions of fame and not for him and his. Therefore, if you somehow get your project financed and your work done, and your conclusions seem to have brought forward a new fact or a better method, you should submit your work for publication consideration.

TYPE PROJECT #3. *Ability to do clinical studies.*

About 1952, a patient of ours had a very difficult postoperative period of convalescence, related to renal shut-down following hypotension and the shock of a long, hard operation for removal of a neglected rectosigmoid carcinoma that had extended into the small bowel and bladder wall. The interest of his wife in why blood samples needed to be flown to Boston, 110 miles away for sodium and potassium assays, led to procurement through funds which she provided of a flame photometer (cost $1100), which continues to contribute daily, and so much to the management of patients with problems of fluid and electrolyte balance in our hospital.

Aside from provision through the equipment of data vital to the conclusions in the publication from this hospital on Cardiac Arrest and Adrenal Insufficiency, its larger contribution has been elevation of standard practice by the staff in matters concerning electrolytes and fluid intake.

Seriograph

The patient, himself, is still alive and well. His surprise at survival led to inquiry about ways in which he might help the staff and hospital to render patient care. We already had facilities for use of cardiac catheterization and considerable experience therein, but lacked equipment for arteriography, especially angiocardiography. Our patient provided $3000 for a Sanchez-Perex Seriograph.

His example led a group of women to give Sanborn electro-manometric and recording instruments, which were then the best available for pressure determinations, and we started on a study of cardiac muscle ischemia and possible methods of alleviation.

An operative procedure was developed and published (cardiolinquoloplexy), which is believed to be a good one, but it is of too large a magnitude for the sick patient who needs it.

Pursuit of the subject and search for a procedure that was good, yet safer and simpler, led to study of internal mammary artery ligation, as had been proposed by others. The result of the study was to find the

throughout the practice of medicine . . .

anxiety

either alone or complicating physical illness

General Practice
Pediatric Psychiatry
Metabolic Disorders
The Neuroses
Neurology
Neuromuscular Disorders
General Surgery
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Ob. & Gyn.
Cardiology
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relieves tension—mental and muscular

procedure valueless, which is a pity, because the operation is so simple and easy to do, but we are grateful to the *New England Journal of Medicine* for giving space to publication of the negative evidence.

The physiologic data of this study came in part through instrumentation previously mentioned, in part through respiratory function equipment arriving from other sources, but again individual sources.

A prominent citizen was impressed with the care for detail which he observed in our efforts to help his wife and her condition of peripheral arterial spasticity. He was interested to hear about the type of spasm that occurs in bronchioles of asthmatics and of the emphysema which causes dyspnea, and was pleased to buy for us Warren Collins and other respirometry equipment as needed.

From measurement of air exchange and observations of benefit to cardiac and cerebral function after assisted respiration and forced oxygenation in a group of patients, we were convinced that intermittent positive pressure breathing and assisted respiration are at times of value. This conviction made easy the telling of needs, to another individual, who found pleasure in providing the equipment. So helpful has this Emerson respiratory equipment been in certain asthmatic and cardiac conditions, that nurses on all shifts have learned to use it, and have been known to suggest its use when telephoning physicians about patients at night.

Interest in problem

An interest in the problem of tissue oxygenation, the presence of respiratory assisting apparatus, the availability of cardiac monitoring instruments, and the occasional transfer of both into a recovery room with a postoperative patient, have led unexpectedly to some observations which we suspect will prove to be of great value, at least to us and to our patients.

We have seen the patient in apparently satisfactory status begin to show a rising pulse rate and to be aware of its rise from the faster beep of the monitor. The oscillographic EKG tracing begins to vary slightly, the blood pressure is found down 20 points in systolic and 10 points in diastolic levels, but nothing really wrong can be discovered as cause.

Physicians and nurses about the bed may begin to discuss whether the patient is cyanotic or not. Someone says that the nailbeds are a little gray, but someone else points out that the ears look pink, and a third person may comment that 4 or 5 liters of oxygen per minute are entering into his pharynx through a catheter. The blood pressure is rechecked and has dropped to 70/50, and norepinephrine may be suggested or started, or further discussion may ensue as to whether the patient is cyanotic, or possibly

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"built-in" assurance of level of intake—With the prescription of Similac, you are assured the infant is receiving his essential vitamins.

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SIMILAC®

There is no closer equivalent to the milk of healthy, well-nourished mothers

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bleeding, or could the blood pressure cuff be wrong.

We have learned that a few seconds of intermittent positive pressure oxygen, repeated several times will usually and dramatically reverse this situation. Everyone then agrees that the patient is pink, that his blood pressure has risen, pulse rate slowed, EKG becomes normal, and that formerly assumed need for vasopressors have disappeared.

Most often, the cause is nothing more serious than shallow breathing or inadequate gas exchange in a narcotized or still partially anesthetized patient.

Oximetry

All surgeons and anesthetists of experience know that this situation or problem has many important ramifications, and especially into the critical phases of long, difficult operations. We have become convinced of need to know much more quickly and accurately about the existence of borderline tissue anoxia than can be judged by vision. It is over a year ago that we started a project to obtain calibrated oximetry guidance. VanSlyke and cuvette apparatus are long since at hand. This week, Wood recording oximeters, Statham gauges and a Grass, 4-channel polygraph assembly have arrived, and are being calibrated.

We now expect to correct anoxia, certainly before an intern, nurse, or anesthetist can speculate about whether cyanosis is present, and hopefully before there is the flicker in the EKG tracing, or tachycardia, or hypotension, which nearly always precedes visible cyanosis.

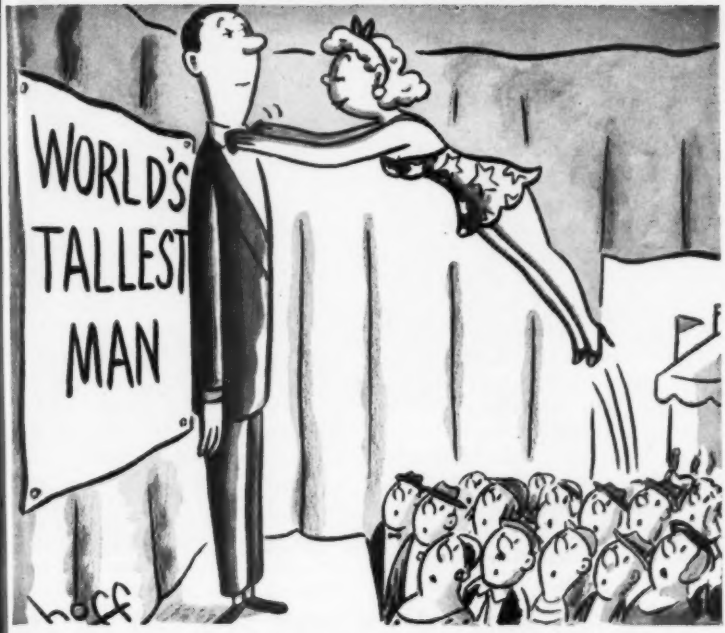
Being unsuccessful and repeatedly delayed in efforts to obtain from our Heart Association the needed support, we have paid $3500 for the equipment with funds raised privately.

I should add that a 5th and 6th channel stand unfilled on the polygraph assembly, because I already suspect that we shall shortly be wanting to add a recording Beckman carbon dioxide analyzer. Basic work by DePinna, many years ago, suggests that venous oxygen levels may have significant bearing on this problem.

What else we shall later want to add, I do not know, but am sure that I shall be glad that there is space available into which to add. Only recently, a funster was assured that all current plans also contemplate saving of sufficient space in the operating room for accommodation of the patient.

TYPE PROJECT #4. *Studies to make safe the patient's environment: infections in hospitals.*

Almost every hospital staff in the country has had reason to be concerned about the occurrence of wound, respiratory, gastrointestinal, or dermal infections within the hospital. The numerous articles on this subject that began to appear from metropolitan centers a few years ago dealt largely with infections in



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wounds. That was then the common problem. Most of the authors were surgeons—or surgeons collaborating with bacteriologists. Misuse or abuse of antibiotics was recognized and deplored. Better cleansing of skin was suggested. More careful scrubbing by personnel was recommended. Less incidental traffic and talking in operating pavilions was seen to be desirable. These examples of clinical investigation came from many hospital groups, both university and non-university connected.

In 1956, we believed ourselves almost immune to this problem, because we were small, segregated geographically, and the limited group of personnel entering the operating pavilion conscientious in applying concepts of cleanliness.

Answers

Occurrence of a small group of wound infections started us on a series of clinical investigations which have been most fruitful and which emphasize an area in which the small hospital may have advantages for doing studies, or facilities for finding answers that surpass those of even the greatest and most academic of metropolitan institutions.

The findings have been published, but in summary: thorough mechanical washing for 10 minutes with hexachlorophene soap solution and preparation with ether (and benzalkonium chloride) will produce a sterile skin surface on either the incision site of a patient or the hands of personnel; i.e.—cleanliness is next to godliness.

Continued skin protection is essential to guard against gradual appearance of organisms from pores.

Air borne contamination is the most important vector of infection and in direct relationship to amount of human usage of the space. This fact can be analytically distilled to illuminating absurdity wherein one would arrive at the true but useless statement: Air borne bacteria can be eliminated entirely from a room by keeping patients and personnel out of the room.

We could prove that turbulence in air coming through filters and conditioning ducts is bacteria free; i.e. —gentle, clean, clear fresh breezes are healthy, as accepted for some centuries.

We could and did confirm the bactericidal activity of concentrated ultraviolet light; i.e.—sunshine is beneficial.

We could and did set up and maintain a rigorous ritual, which could be accomplished because conditions to be established could be agreed upon by a few people, and put into effect within a few hours, with total cooperation and direct interest from lowest to highest member of the hospital family.

For amusement, one can imagine the response he would get in a 1000 bed hospital to a total directive telling the mopper how to mop, the su-

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pervisor how to dress, the administrator what soap to buy and how much to allow used, the chief surgeon how to scrub his hands, the ranking resident how his nose must be masked, and the nurse how to clean her shoes daily.

Other infection

The interested small hospital can accomplish all of this happily and promptly—and we did. We have still had some wound infections, leading to continued investigations that have been fruitful. Through the assistance and cooperation of the Aeroplast Corporation, (Dayton, O.), we have tested, proved, and adopted a transparent, pliable plastic film, "Vi-DRAPE," which is made tightly adherent to the skin by use in conjunction with a spray-on plastic adhesive, "Vi-HESIVE." This adhesive is first sprayed over the scrubbed operative area and the "Vi-DRAPE" is then lowered onto the area and molded tightly to the skin. The regular surgical drape is then applied. An incision made through the plastic film and into the skin will remain for many hours completely separated from the skin surface by means of the intimately adherent impervious membrane. It would appear that a new and nearly ideal skin drape has been found, which is not only skin adherent to the incisional edge, but does away with skin towels and clips as well.

Having gone as far as we could learn to go along lines of surgical techniques, the continued appearance of other types of infection, such as an occasional instance of diarrhea of resistant pneumonia, directed our attention to housekeeping procedures. We found much to improve in this hospital which has been noted for its cleanliness and neatness of appearance.

I do not wish to burden you with details of this investigation, except to pass along a few facts learned, which we believe to be of utmost practical importance to all hospitals. A large group of studies established that feeding reservoirs of infection are along the walls, about the corners, and at floor edges. There were others around examination tables, in bathrooms, and in utility closets. Laundry hampers, blankets, mattresses, kitchen utensils, and equipment used for cleaning formed a third group.

Source

There was both administrative and professional consternation at the enormity of the problem suggested by the findings, from standpoints of the assumed cost to correct, of the psychologic effect upon auxiliary personnel in putting the need for drastic upgrading of performance before them, and the presumed anticipated impossibility of getting the message across. We have learned so much about how easily the project was successfully accomplished, that I would be remiss in failure to summarize.

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for staphylococcic septicemia, enteritis, postoperative wound infections and other serious staph infections.

DOSAGE: Adults: CATHOMYCIN Sodium 2 capsules b.i.d. or CATHOMYCIN Calcium Syrup 4 teaspoonfuls b.i.d. Children: (up to 12 years) 2 to 8 teaspoonfuls daily in divided doses based on 10 mg. CATHOMYCIN per lb. of body weight per day.

SUPPLIED: Capsules sodium novobiocin, each containing the equivalent of 250 mg. of novobiocin—vials of 16 and 100—and as an orange-flavored syrup (aqueous suspension), in bottles of 60 cc. and 473 cc. (1 pint). Each 5 cc. CATHOMYCIN Syrup contains 125 mg. (2.5%) novobiocin, as calcium novobiocin.

*Complete bibliography available on request.

MSD MERCK SHARP & DOHME Division of MERCK & CO., INC., Philadelphia 1, Pa.

Cultures were taken by the bacteriologist at various locations throughout the hospital and these were shown and explained to all personnel, assembled in one group, in simple language that the least educated could follow. The chief surgeon explained how his job and that of the floor mopper served an equally important need to keep the patient free of infection: also that an infection can come from the surgeon's nose or the mopper's floor, and many other places around the hospital.

The difference in the appearance of the blood plates inoculated with environmental samples from poorly cleaned areas as against samples from similar areas mechanically and thoroughly scrubbed were shown them and the change, to put it mildly, was impressive.

Through the cooperation of the Lehn and Fink Products Corporation of Bloomfield, N. J., we have had available a pleasantly clean-smelling, easy to use combination of a phenolic disinfectant and detergent preparation, "Tergisyl," which is used in 2% solution for every cleaning procedure in the hospital—floors, walls, windows, toilets, cabinets, dining tables—everything excepting laundry.

The additional and unmistakably germ killing effect of using this phenolic disinfectant—detergent solution with good mechanical cleaning each day was obvious to all from their examination of bacterial plates before and after cleaning the plates.

An important job recognized as such, interested personnel, and good methods are all needed to achieve a cleaner, safer hospital—yet at no substantially greater maintenance cost—particularly when the cost of infections is taken into account.

The same ideas and methods were applied in the laundry with equal success as to the floor, equipment, etc.

Many hospital laundries operate on the assumption that finished and stored laundry is sterile but, as in so many other places in the hospital, we found this not to be true. In consequence, during the last several months, we have been using an experimental final laundry rinse supplied to us also by the Lehn and Fink Products Corporation, which is a combination of a quaternary ammonium germicide and a quaternary ammonium "fluffing" agent. This final rinse not only results in sterile laundry, but a fluffy "sheen" laundry that both the patients and nurses like. An added economic advantage in using this laundry rinse is the fact that about one-third more water can be extracted, thereby cutting down the drying time.

We have also undertaken the routine laundering of blankets between patient changes or when soiled when our bacteriologic studies revealed extremely high bacterial counts. To the regular blanket soap wash, a new phenolic germicide "Amphyl" made by the same com-

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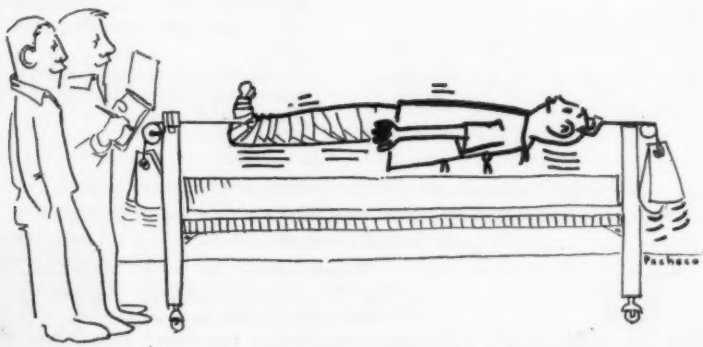
pany was added in a concentration of 2%. We have found that this disinfectant neither shrinks nor discolors blankets, although it renders them routinely sterile.

The laundry washer is as interested as anyone in delivering clean blankets and linen. Her friend the night aide and she will tell each other plainly why these blankets must be cleaned and how they get that way. Their language and conclusions are not in the form approved for scientific journal publication, but their enthusiasm and that of their co-workers for their contributions to patient safety, their ability to do their jobs as simply as before but better, and their appreciation of being recognized are the reasons we have a better, cleaner, safer hospital, as anyone can see who would like to come and look.

This investigational project would not receive a grant and it would get a "down nose stare from a long hair." It only discovers homely virtues all heard of before—cleanliness is next to godliness—gentle sea breezes are healthy—sunshine is beneficial. Its outcome and contribution, however, are that our hospital has been able to control the infection problem constructively and within its budget. In many ways, accomplishment of this achievement depended on giving extreme attention to details previously assumed to be too unimportant to warrant attention. A lot of practical research is like that.

HUGGINS HOSPITAL,
WOLFEBORO, N. H.



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Medical Ethics and Etiquette

Perrin H. Long, M.D.

Section 8. A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.*

This section is quite clear in its wording. If the family, or those who have legal responsibility for a patient, request a consultation, their request should always be honored by the patient's doctor as promptly as possible. The physician who feels slighted when a family requests a consultation, obviously is insecure and immature. As two heads are frequently better than one, the physician on his own volition should seek a consultant's opinion whenever possible for those patients whose diagnosis is unclear, or who present difficult problems of therapeutic management.

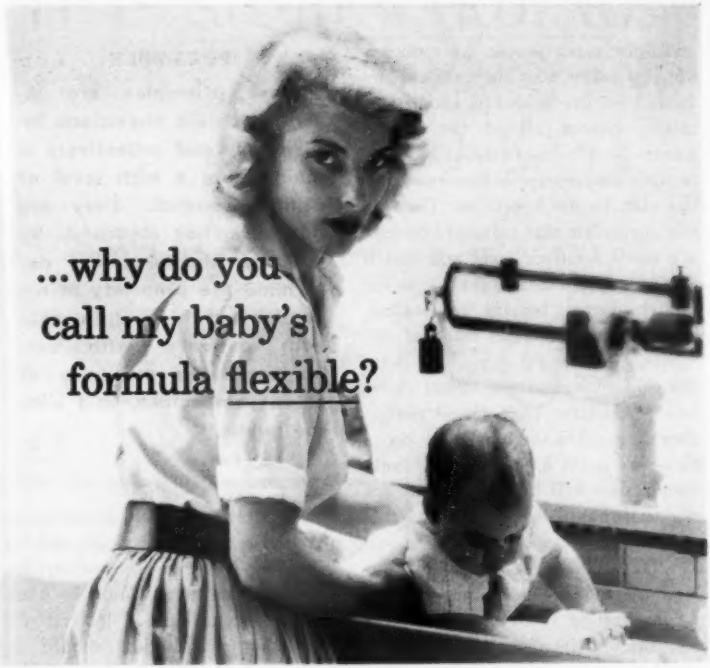
However, the practice of having consultants in should not be carried to the point of a physician's consistently avoiding his primary responsibility for his patient by calling in consultants at the drop of a hat. The major reason for asking for a consultation is to enhance the care of the patient. It is the doctor's direct responsibility to ask for help when he finds himself baffled, relative to disease in a given patient.

Etiquette

We have been discussing ethical considerations concerned with a consultation. Now let us turn to the etiquette of consultation, because knowledge of this is of considerable importance. As Dr. C. A. Clarke has pointed out *(Practitioner.* No. 1069. Vol. *179.* Pp. 5. 1957) "The subject of medical etiquette is a prickly one and always has been. Etiquette governs the conduct of doctors with one another, whilst ethics deals with their relationships towards individual members of the public, and also their responsibility to the state.

"The public, by and large, understands ethics, but is mystified by the reasons underlying etiquette. For

*Principles of Medical Ethics. J.A.M.A. 164:1484 (July 27), 1957.



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example, many people are quite unable to grasp why they should not go and see Dr. So and So about their heart, without all of the hanky-panky (as it seems to them) of going to their own doctor before and after the visit to the specialist. They do not appreciate that rules of etiquette are made for their good and that it is vitally important to them that the family doctor remain in control. They rather view the rules of etiquette as though they had been drawn up to meet the vested interests of doctors. They forget that if they are taken seriously ill on a Saturday night it will be the family doctor who will heal them and not the consultant."

No meeting

Many times I feel that doctors forget that a medical or surgical consultation involves two or more members of the profession. Too often, especially in hospitals, a consultation is requested, the consulting physician rushes in to see the patient at the time of his next visit to the hospital, a note is made in the case record of the consultant's opinion, (too frequently, a telephone call to the referring doctor is the only record of the consultation), and that's that. No meeting of the minds, no discussion of the patient's condition with himself or his family; nothing except an opinion has been gained, and this may or may not turn out to be valuable either to the patient, the family or the doctor.

PREAMBLE

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws, but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public."

An opinion

Consultations should be timed so that the referring physician and the consultant can see the patient together. Consultants should be punctual. If a consultant is delayed very long the consultation should be postponed. Prior to any questioning or examination of the patient, the consultant should be introduced to him and to any members of his family who happen to be present.

If the patient is in a hospital, members of the house staff concerned with the patient's care should be present throughout the consultation. The referring physician or the senior house officer should present the case record, either before the patient, or without the patient's being present, this decision being made by the patient's doctor. The consultant then is free to ask the patient, and the doctor any ques-

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DIGOXIN	0.5 MG.	0.5 MG.

SUPPLIED—Gitaligin TABLETS 0.5 mg., bottles of 30 and 100.
Gitaligin INJECTION 2.5 mg. per 5 cc. sterile I.V. solution, boxes of 3 and 12 ampuls.
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*BIBLIOGRAPHY AVAILABLE ON REQUEST.

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tions, and conduct such physical examinations as he feels are necessary for the formulation of his opinion.

While he is questioning or examining the patient the referring physician and house staff remain silent.

At the conclusion of the examination, the physicians should retire to hear, discuss, and record the consultant's opinion. Do not do this before the patient or his relatives. Then the physicians return to the patient's environment and talk over, according to a prearranged plan, the consultant's opinion with the patient and/or his family (a more explicit and detailed opinion may be given the patient's family later). *The consultant must always be especially tactful.*

Another location

There are many times when a family physician refers a patient to a consultant who lives in another city, and of course it is generally not possible for the patient's doctor to be present at such a consultation. In such circumstances, the referring physician should make available to the consultant, in advance, his records which concern the patient, how he feels the patient should be managed as far as the patient's environment is concerned, any idiosyncrasies of the patient or his relatives, and to what degree he wishes the patient to be informed of the consultant's opinion. It must be remembered that as the patient has hired the consultant, he or his relatives are entitled to know what the consultant's opinion is.

Full report

A consultant should be prompt and on time for a prearranged consultation. If, in the course of his questioning or examinations, he finds that a considerable error in diagnosis has occurred, he should not broadcast this finding by word or look, but should (artfully and quietly) point out the error to the referring physician in private. In his recommendations, the consultant should be specific and detailed. Don't just say, "I would recommend digitalis;" state the preparation you would prefer to have used and outline the dosage. If the patient is referred from out of town, it is the consultant's responsibility to give the referring physician a complete report of the findings *as promptly as possible.* Consultant should include in this all that was told the patient.

Consultants must remember that, in general, they should not refer patients to other consultants. They must return the patient to the referring doctor with any recommendations for further consultations. However, when a patient is referred to a *clinic* or a *group* this injunction is inoperative. Consultants also must not see patients a second time without a second referral by the family doctor. While a consultant may give

medical treatment to another physician's patient in an emergency, he should not become the regular attendant of a patient in an illness in which he has seen the patient in consultation, without the expressed consent of the physician who was in charge at the time.

Disagreement

What if the referring physician disagrees with the consultant's opinion? What does he do then? The best thing to do is to tell the patient or his relatives that you are not in agreement, and ask for permission to have another consultant see the patient. Now suppose it's the other way round. Say a surgical consultant feels that an operation should be performed, while the referring physician does not think so. The consultant can state his opinion to the relatives and ask that another consultant be called.

What should the consultant's fee be? That depends on the ability of the patient to pay, and I think that the individual who knows most about what the consultant's fee should be is the patient's own physician. I have always made it a practice to ask the referring physician about what my fee should be, and I have rarely been disturbed by his suggestion. One thing, though, that a young consultant must look out for: *Don't let the referring physician pay you in the name of the patient or his family.* If he does this it generally means that the family has turned over a considerable sum of money to their doctor, and he is naming a fee that will permit him to cash in on your consultation. This is highly unethical and no physician should be a party to such a procedure. *Remember, don't charge all the traffic will bear.* Such a practice only brings our profession under criticism, and brings nearer the day of socialized medicine.

HAPPY MEMORY

The will of Dr. J. Ackerman Coles included a clause providing for the interest of certain bonds of his estate to go for the purchase of ice cream for the grade school children of his town, Scotch Plains, New Jersey.

Since his death some thirty years ago, the ice cream party has been held annually. That is, until recently.

Inflation in the cost of ice cream and in the number of school children has made the bequest insufficient to hold the affair on schedule. However, after a three-year postponement the party was held this year.

More than 2,000 pupils in the kindergarten and the first five grades in the Scotch Plains schools had their ice cream—courtesy of Dr. Coles.

—from the NEW YORK TIMES

Medicine, the Quack and the Law

The legitimate physician should know the legal meaning of the term "quack" and should be circumspect in applying it. Otherwise he may find himself the defendant in a libel or slander action.

George A. Friedman, M.D., LL.M.

Hope springs eternal in the human breast, and it isn't uncommon for persons afflicted with dreadful diseases to be misled and beguiled into believing that they have been helped by quacks and charlatans.[1]

In these words an astute court put its finger on the reason why, despite the vast strides made by medical science over the years, the quack continues to flourish.

With extravagant claims as to his curative powers and those of his remedies, the quack has succeeded in exploiting the public to the tune of millions of dollars each year. This sum gullible men and women gladly pay for the dubious privilege of endangering and impairing their health.

The field of cancer treatment has proved especially lucrative for the quack, for the reason that cancer continues to baffle medical science. Because of the seriousness of the problem, this article is primarily concerned with, though not limited to, the cancer quack.

Before proceeding to a discussion of the cases in this area, it should be noted that the line separating the quack from the legitimate doctor is not always one of sharp demarca-

tion. As a consequence, unless one is circumspect in his use of the appellation "quack," he may be required to defend himself against a charge of libel or slander. Therefore, it is important to understand what is meant by the term "quack" —particularly as the courts have defined it.

Although "quack" is generally taken to mean "an ignorant or fraudulent pretender to medical skill,"[2] it may also refer to a legally qualified practitioner who "advertises with fraudulent boasts"[3] or *deals in* nostrums.[4]

Libel

This latter definition is aptly illustrated by a New York case[5] in which plaintiffs, properly licensed physicians, brought suit for libel against a magazine which had published the statement, "Under the high-sounding title of the World's Dispensary Medical Association, Dr. R. V. Pierce and his associate quacks deal in a variety of nostrums."

Plaintiffs contended that the word "quack," as used by defendants, was intended to characterize them as unqualified, incompetent and unlicensed physicians.

The court held, however, that the meaning contended for by defendants, that plaintiffs were "quacks" in that they dealt in a variety of nostrums and made false and fraudulent claims concerning the efficacy and curative powers of these nostrums, was also proper.

In another action for libel,[6] the former editor of the A.M.A. journal, Dr. Morris Fishbein, was sued for his article "Modern Medical Charlatans—John R. Brinkley," which read in part:

"In John R. Brinkley, quackery reaches its apotheosis. He continues to demonstrate his astuteness in shaking shekels from the pockets of credulous Americans, notwithstanding the efforts of various governmental departments and agencies. * * * The evidence assembled indicates that at various times, Brinkley has made as much as $55,000 a week from his various quackeries. * * *"

It was held that the defendant's opinions were supported by the evidence that plaintiff had obtained his diploma from a diploma mill, that he advertised by pamphlets, newspapers and radio, that his licenses, both medical and radio, had been revoked, that he had been indicted for a conspiracy to unlawfully practice medicine, that at the time of the publication he was advertising by radio from a Mexican station, and that he would prescribe by letter for persons who wrote describing their symptoms.

Therefore the publication was privileged under the Texas statute which declares that reasonable and fair comment or criticism of matters of public concern published for general information shall not be made the basis of an action for libel.

In a Kansas case[7] involving the

same parties, however, a different result had been reached. There it was held that the headline, "John R. Brinkley—Quack," and the conclusion, "John R. Brinkley is a blatant quack of unsavory professional antecedents," were libelous per se, and could only be justified if true.

In 1949 Dr. Fishbein was again sued for libel[8], this time by one Harry M. Hoxsey, head of a cancer clinic in Dallas, Texas. In an article, Fishbein had called Hoxsey a "charlatan" and a "quack," and had charged that Hoxsey's father had died of cancer after using the same remedies now used by Hoxsey. The decision was for the plaintiff, the court stating:

"There is no constitutional right nor statutory right for an individual or publication to assume the position of censor over another's conduct; if there are two places for treatment of a trouble, the individual has a right to make his choice; the question of practicing without a license is in the hands of public officials; the matter of malpractice or negligence is in the hands of the individual who has suffered, and he has a civil remedy for damages."

Although Hoxsey sued for $500,000 actual and $500,000 punitive damages, he was allowed to recover only $2 nominal damages, on the grounds that the publication did not damage him, since "he thrives on all the publicity he can stir up," there was no decrease in his earnings, and there was no malice on defendant's part.

Licensing statutes

Devised by the legislatures to prevent quackery, statutes regulating and licensing the practice of medicine and surgery are in effect in every state of the union. As the following cases will illustrate, the legal consequences of failure to comply with such statutes are several:

• Defendant, a farmer, manufactured from vegetables grown on his farm what he claimed to be a remedy for cancer. He had used it upon from 50 to 75 patients, describing the process thus: "I take a little stick and get a little medicine on it, and put it on the cancer, the diseased part, and that works from 15 minutes to half an hour, until it works the strength out of the medicine, and then I clean that off and apply it again."

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For this he received $50 down and another $50 when the "cure" was effected. A criminal action held the defendant was guilty of practicing medicine without a license.[9]

• Defendant, a sanipractor, undertook to treat a woman who was suffering from cancer, claiming he could effect a cure in three months. After several months of treatment consisting of a liquid diet with frequent hot baths, he lanced the cancer, thereby causing the woman's death.

Criminal proceedings instituted by the state held defendant's act constituted the practice of surgery within the meaning of the statute making the unlicensed practice thereof a crime.[10] (Note: Defendant was fined the grand total of $250!)

• Defendant, who was not licensed as a physician or surgeon, posted the following sign in his yard: "Cancer Home. We Guarantee to Kill and Remove Cancers—or No Pay. No Knife—Radium—X-ray—or Electricity. W. W. Cooper."

Also among his advertisements was this one: "Cancers. Attention: Cancer is a very old disease. We can trace it almost as far back as we have knowledge of civilization. Familiar to the earliest physicians, it has persisted through the ages, and is baffling their efforts as effectively today as it did hundreds of years ago. And it is a fact there is no dangerous disease so easily cured as cancer, and none more dangerous if neglected too long or improperly treated. We guarantee to kill and remove them—or no pay. Over thirty years successful practice and no failures. Proof of success is success itself. Write and we will send you the proof. W. W. Cooper, Mgr. the Cancer Home, Altoona, Kansas."

An action brought by the state to restrain defendant's activities held defendant was unlawfully practicing, and unlawfully advertising the practice of medicine and surgery and should be enjoined.[11]

• Plaintiff (none other than Harry M. Hoxsey) entered into a contract with defendant, whereby each was to divulge to the other his secret formula for the treatment of cancer. In addition, plaintiff was to treat patients at defendant's clinic, for which he was to receive 15% of the gross receipts.

An action to recover this 15% ($81,000 in five months!) held that plaintiff, in order to recover, must allege he is a licensed physician.

"It is . . . well settled that, where the law requires a person who practices a profession such as medicine . . . to obtain a license, one who practices without having obtained such license cannot recover compensation for services so rendered."[12]

Licensed

Turning now from the unlicensed to the licensed, it should be observed that, although in most cases

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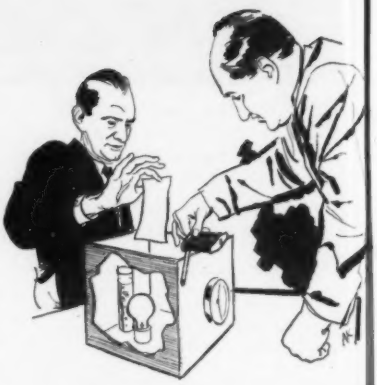
the quack is an unlicensed practitioner, there are situations where he may be licensed. Where such is the case, however, his quack practices may constitute grounds for revocation of his license.

Thus in a 1941 Indiana case,[13] defendant's license to practice chiropractic, naturopathy and electrotherapy was revoked on the grounds of "gross immorality" based on the following facts: Defendant employed a machine called an "etherator," which consisted of a small wooden box in which was contained an electric bulb and a glass tube filled with water. On the outside of the machine were a pedal and a dial, neither of which had any connection with the interior.

Defendant claimed he could treat and cure such diseases as cancer, tumors and blindness by having patients deposit slips of paper moistened with saliva into the "etherator" while he rubbed his thumb over the pedal and talked to the machine.

He also claimed he could administer treatments at a distance—thus it was not necessary that the patients be present in his office. Nor was his practice limited to the treatment of human ills—he could also give "financial treatments" causing money to come into the hands of patients.

In a recent Illinois case, the licensing board revoked a physician's license on the finding that the physician had made false claims



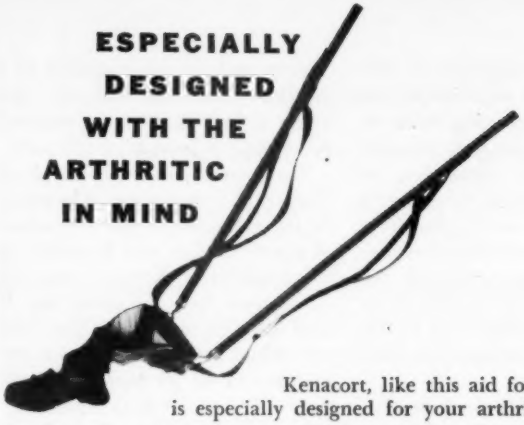
of his skill in the treatment of cancer cases; in particular, that he had told a patient she had cancer but she should not worry because he would administer the "Koch Treatment" which was an "absolute cure"; also that he had recommended the treatment for her husband and children for "that would keep [them] from ever having cancer."

On appeal, the court reversed the board's decision on the grounds that the findings were not sustained by the evidence presented.[14]

Malpractice

The rules relating to malpractice are the same for the quack as for the qualified physician. As with all other forms of negligence, there are two kinds of liability for malpractice: criminal and civil.

Criminal liability results where there is criminal negligence in the treatment of a patient, which causes



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- **without salt and water retention** [1,3-9]
- **with no potassium loss** [4,9]
- **without unnatural psychic stimulation** [1,5,8]
- **with no adverse effect on blood pressure** [1,4,5,7,8]
- **on a lower daily dosage range** [5-8]

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injury. Criminal negligence is held to exist where the physician or surgeon, or person assuming to act as such, exhibits gross lack of competency, or gross inattention, or criminal indifference to the patient's safety. This may arise either from his gross ignorance of the science of medicine or surgery, and of the effect of the remedies employed, or through his gross negligence in the application and selection of remedies.[15]

Where the patient's death results, the rule may be stated as follows: One, who through criminal negligence in the treatment of a patient causes his death, is guilty of manslaughter, and this is so whether or not the party undertaking the treatment of the case is a duly licensed practitioner, or merely assumes to act as such.[16]

Thus, where a patient died after an unlicensed practitioner attempted to cure him by administering a brew made from hog feet, and by rubbing his limbs and body, accompanying the same with an incantation, the practitioner was charged with gross ignorance and culpable negligence, and was convicted of manslaughter.[17]

Similarly, in an English case,[18] a blacksmith was found guilty of manslaughter for having caused the death of a patient by applying corrosive sublimate to a cancer.

Civil liability, for the quack as for the ordinary physician, is predicated on the failure to exercise reasonable skill in the treatment of a patient. The only question that arises is in regard to the standard to be used in measuring this skill.

The general rule is that a physician's skill and care are to be tested by the principles of his own school of practice. This rule is subject to the qualification, however, that the school must be a recognized one of good standing, one which has rules and principles of practice for the guidance of all its members as respects diagnosis and treatment.[19]

Accordingly, in an early malpractice case involving a clairvoyant physician,[20] it was held that the question was not whether the defendant treated the patient with the ordinary skill and knowledge of the clairvoyant system, but whether he treated him with the ordinary skill and knowledge of physicians in good standing practicing in that vicinity.

As the court pointed out:

". . . one who holds himself out as a medical expert, and accepts employment as a healer of diseases, but who relies exclusively for diagnosis and remedies upon some occult influence exerted upon him, or some mental intuition received by him, when in an abnormal condition . . . takes the risks of the quality or accuracy of such influence or intuition. If these move him so imperfectly or inaccurately that, although he pursues the course of treatment thus pointed out or indicated to him, he fails to treat the patient with

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AWARDS are made annually to selected applicants who aspire to specialization in pediatrics but who are financially unable to undertake the residency training required for Board certification. Each grant provides $2400 yearly for two years of residency in a hospital accredited by the Residency Review Committee of the American Board of Pediatrics.

APPLICANTS must be citizens of the United States or Canada. Awards are limited to interns, to young physicians who have recently completed internship, to physicians coming out of the armed services or U.S. Public Health Service, and to research Fellows. Those who have already started pediatric residency training are ineligible. Awards are made directly to fellowship recipients, and do not replace the stipends normally paid to residents by the institutions.

WYETH plays no part in the selection of recipients. All applications are reviewed by the Selection Committee, composed of distinguished physicians in active pediatric service. Requests for applications or further information should be addressed to the committee chairman: Philip S. Barba, M.D., School of Medicine, University of Pennsylvania, Philadelphia 4, Pa.

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reasonable skill, he is liable for the consequences."

Where a farmer held himself out as a cancer doctor, having skill and experience in the treatment and cure of cancer, and claimed to be in possession of a certain prescription that would remove cancers, he was held liable for injuries resulting from his treatment.[21]

In a recent case[22] defendant, a licensed sanipractor (the same one, in fact, who was convicted above for lancing a cancer without a surgeon's license), treated plaintiff for diabetes, prescribing diets and baths.

The treatment proved unsuccessful and the plaintiff's health deteriorated greatly. The court, rejecting defendant's contention that he was entitled to have his treatment tested by the rules of the sanipractice school, held him liable on the grounds that, since he knew or should have known his treatment was of a non-beneficial nature, it was his duty to advise plaintiff to seek other relief.

As to the effect of a licensing statute on the question of civil liability for malpractice, courts have generally refused to infer negligence from the mere violation of the statute, but have demanded other proof that defendant did not exer-

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cise the care and skill of a qualified practitioner.[23]

Although control of quackery, as the foregoing indicates, is primarily a matter for the respective states, both under specific licensing statutes and under the laws of negligence, the federal government also exercises some degree of control. The principal instruments of federal control are to be found in the Food and Drug Act and the Federal Trade Commission Act.

§301(a) of the Food and Drug Act prohibits "the introduction or delivery for introduction into interstate commerce of any food, drug, device or cosmetic that is adulterated or misbranded." §302(a) of the Act gives the Federal District Courts power to restrain violations of §301.

Pursuant to these sections, the Government in *United States v. Hoxsey Cancer Clinic*[24] sought to have Hoxsey enjoined from shipping certain drugs in interstate commerce. It contended the drugs were misbranded in that the accompanying booklet represented that they were efficacious in the treatment and cure of cancer.

In reversing the trial court's denial of an injunction, the appellate court stated:

"Our consideration of the record and the nature of the issues involved has led to the firm conclusion that the trial court's findings of fact that the representations in the labelling were neither false nor misleading, and that the brownish-black and pink colored medicines were efficacious in the cure of cancer in man are clearly erroneous."[25]

Unlawful

A similar fact situation, involving Koch Laboratories, was dealt with under a different federal statute. Koch had sent through the mails advertisements for certain of its drugs, in which it represented that the drugs would cure cancer. The Federal Trade Commission instituted a proceeding, charging a violation of §12(a) of the Federal Trade Commission Act, which makes unlawful the dissemination in the United States mails of any false advertisement to induce the purchase of foods, drugs, or cosmetics.

After hearing extensive expert medical testimony to the effect that Koch's drugs would not cure cancer, the F.T.C. found the advertisements false and issued a cease and desist order. On an appeal taken by Koch, the order was affirmed.[26]

The provisions of the Food and Drug Act and the Federal Trade Commission Act discussed above, while perhaps the most obvious, are by no means the exclusive methods of federal control over quackery.

Something as unlikely as federal jurisdiction over radio stations has also, on at least one occasion, been instrumental in frustrating a quack venture.

In *KFKB Broadcasting Association v. Federal Radio Commission*

the Commission had revoked the broadcasting license of John R. Brinkley on the grounds that the station had been operated only in his personal interest. Among the more pertinent facts were these:

Although the station was in the name of a corporation, Brinkley owned all or most of the stock; both the Brinkley Hospital and preparations of the Brinkley Pharmaceutical Association were advertised widely over the station; and Brinkley himself conducted three half-hour programs daily called the "Medical Question Box," which prescribed treatment for persons writing in to the station.

With regard to the latter, the Commission had held that "the practice of a physician's prescribing treatment for a patient whom he has never seen, and basing his diagnosis upon what symptoms may be recited by the patient in a letter addressed to him, is inimical to the public health and safety, and for that reason is not in the public interest." The Commission's decision was affirmed on appeal.

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1. Briller, S. A.: M. Clin. North America 41:619, May, 1957.

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Mediquiz

These questions were prepared especially for RESIDENT PHYSICIAN *by the Professional Examination Service, a division of the American Public Health Association.*

Answers will be found on page 169

1. Which of the following statements is valid for dynamically oriented psychotherapy with emotionally disturbed adolescents?

1. Parents must always participate actively in treatment if the child is to maintain gains from his treatment.

2. It is essential that parents and adolescents be seen by different therapists to avoid competition for the therapist's favor.

3. When the therapist knows that adolescent complaints about parental mistreatment are justified, he should actively intervene in the situation by contacting the parents directly.

4. It is occasionally in order for the therapist to advise adolescents directly about behavior (smoking, drinking, jobs, sex conduct, etc.).

5. It is generally a poor prognostic sign when an adolescent breaks an appointment after an initial period of regular attendance.

2. The characteristic ovarian change associated with hydatidiform mole is the development of:

1. Lutein cysts.

2. A persistent corpus luteum of pregnancy.

3. Abnormal ovulation.

4. Bilateral atrophy.

5. Multiple follicular cysts.

3. A 30-year-old woman is seen for a routine examination 3 months post partum. Psychiatric consultation is most urgently called for if she complains:

1. Of uncontrollable irritability directed toward her children.

2. Of complete loss of libido, with bitter quarrels over sexual relations.

3. That she cannot sleep without sleeping pills.

4. Of feelings of tension recurring throughout the day.

5. That her husband and children

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Hospital Name ..... City ..... State .....

do not like her and that life is not worthwhile.

4. The wife of a clearly neurotic patient complains that you have failed to care for her husband's needs and that he would have been awake all night, had it not been for Doctor A. The most appropriate response for you to make to the wife is to tell her that:

1. You will ask for a psychiatric consultation.
2. She must evaluate the patient's complaints in the light of his disturbed emotional state.
3. You will have the patient transferred to Doctor A.'s care.
4. You will talk with the patient.
5. She is not in a position to judge the situation without having further information.

5. The Schwartz's Test, in which the internal saphenous vein near the groin is palpated while a dilated varicosity in the leg is tapped with the fingers, is a test for:

1. Thrombosis of the deep veins.
2. Incompetence of the communicating veins.
3. Incompetence of valves of the internal saphenous vein.
4. Thrombosis of the saphenous vein.
5. Abnormal arteriovenous communications.

6. The most common neoplasm of the subdiaphragmatic area in childhood is:

1. Neuroblastoma.
2. Lymphosarcoma.
3. Hemangiosarcoma.
4. Rhabdomyosarcoma.
5. Embryonal adenosarcoma.

7. The most widely used operative procedure for the treatment of congenital hypertrophic pyloric stenosis of infants was developed by:

1. Ladd and Gross.
2. Fredet and Ramstedt.
3. Sir Arthur Keith.
4. William S. Halsted.
5. Charles W. Mayo.

8. The family history of a patient with dystrophia myotonica usually reveals that members of earlier generations had:

1. The classical picture of dystrophia myotonica.
2. Cataracts.
3. Muscular wasting without myotonia.
4. Myotonia without muscular wasting.
5. A high incidence of amenorrheic females.

9. The usual incubation period of brucellosis in children is about:

1. 2 days.
2. 1 week.
3. 2 weeks.
4. 3-4 weeks.
5. 6-8 weeks.

10. Jimmie, age 4½, was being taken to the surgery for a tonsillectomy and adenoidectomy. He begged

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In the presence of trichomoniasis, many physicians now routinely specify prophylactics to prevent husband-wife reinfection. ". . . Trichomonas vaginalis in the male is the principal factor of re-infection in the female. . . ."[1] Husbands will cooperate more readily in the treatment plan for wives if you specify RAMSES, the prophylactic with "built-in" sensitivity.

1. Feo, L. G., et al.:
J. Urol. 75:711 (April) 1956.

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to be allowed to take his teddy bear with him. The surgeon permitted him to do so. This action on the part of the surgeon illustrated his understanding of the principle that:

1. All children covet one special plaything and the attachment to a favorite toy is common.
2. The absence of familiar objects, persons, or expectations in the environment contributes to the insecurity experienced in a new situation.
3. All children are frightened by the unfamiliar.
4. Children in this age group automatically develop a fantasy world and treat toys as if they were animate.
5. The child who experiences anxiety may express this in regressive behavior, such as clinging to toys from infancy.

11. Many authorities agree that postabortal sepsis carries a worse prognosis than postpartum sepsis. The most likely explanation is that there is:

1. Increased blood volume during advancing pregnancy, increasing the amount of blood flow to the pelvic viscera.
2. Increased vascularity in the pelvic viscera during advancing pregnancy and labor, giving greater local tissue immunity.
3. Greater likelihood of operative trauma with abortion than with pregnancy.
4. An increase in the leukocytic and neutrophilic elements during advancing pregnancy and labor, giving greater general resistance to infection.
5. An increase in elements of the reticulo-endothelial system in the pelvic viscera during advancing pregnancy and labor, giving greater local tissue immunity.

12. A cause of metabolic cataracts is:

1. Chronic hypoglycemia.
2. Chronic tetany.
3. Addison's disease.
4. Hyperthyroidism.
5. Vitamin D deficiency.

13. If on mirror laryngoscopy a tumor is noted between the vocal cord and ventricular band on the right lateral side of the larynx, this lesion should be described as being in the:

1. Ventricle.
2. Cricopharyngeus.
3. Vallecula.
4. Infraglottic area.
5. Pyriform sinus.

14. Atopic sensitivity is correctly described as:

1. A familial tendency to allergy, manifested particularly by clinical conditions such as hay fever and bronchial asthma.
2. A state of hypersensitiveness produced experimentally in animals by injecting them with foreign proteins repeatedly.
3. A tendency to develop severe

and persistent attacks of nummular eczema.

4. A form of sensitivity to secretory products of bacterial growth with a pronounced tendency to develop recurring attacks of asthmatoid bronchitis.

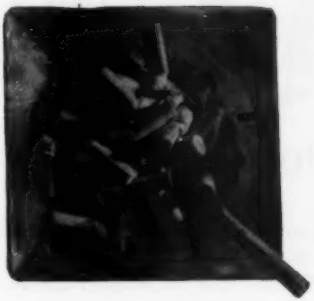
5. An acquired state of allergy, produced by prolonged excessive exposure to high concentrations of pollen inhalants.

15. One of the major reasons for dividing the trigeminal nerve intradurally for relief of trigeminal neuralgia is that the:

1. Results of relief of pain are better with intradural than with extradural preganglionic section.
2. Chance of extradural hemorrhage is less with this approach.
3. Ophthalmic division is more easily protected so that corneal ulceration is prevented.
4. Approach is easier than the extradural approach.
5. Motor root is spared as it is not in close proximity to the sensory root in this location.

16. In view of the many and various surgical procedures on the stomach, it is of importance that the site of greatest activity of Castle's "intrinsic factor" be known. The greatest activity resides in the:

1. Body.
2. Fundus.
3. Pyloric region.
4. Cardia.
5. Antrum.



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Born in 1728, the youngest of ten children, he became, like his brother William, one of the great figures in British medicine.

At 20, he went to work in the dissecting room of his brother, who was the leading anatomist of his day. Among his discoveries were a demonstration of the branches of the olfactory nerves, the branches of the fifth nerve, the course of the arteries in the gravid uterus and the presence of lymphatic vessels in birds. He performed, when he was a surgeon, the first high operation for aneurysm of the popliteal artery.

He became a surgeon's pupil in St. George's Hospital and, in 1756, house surgeon. He went to Oxford but quit in two months at the prospect of studying Latin and Greek, protesting that "they tried to make an old lady of me." He never had a formal education.

He started each day's work at 6 A.M. and worked at fever pitch. He was married at 8 in the morning because he could not fit the mar-

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*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

riage ceremony into any other part of his day. He experimented in every possible field, writing papers on the bones of birds, the gillaroo trout, digestion of food in the stomach after death.

His lectures were brilliant in content but poor in delivery and radical in viewpoint. He told his surgical students that surgery was inferior to medicine because it was a last resort, yet it was he who single-handedly converted surgery from a trade to a science based on knowledge of every biological process. He was a man of furious temper and stubborn conviction. Many of his manuscripts were burned after his death because of the newness of his ideas.

He experimentally inoculated himself with syphilis and treated it as gonorrhea, believing, like others, that the two were the same. His weakened condition did not survive one of his rages and he fell dead in a hospital board meeting at St. George's in 1793.

Of his students, Sir William Blizard founded a private school that became the London Hospital Medical School, Philip Syng Physick became the first full professor of surgery at the U. of Pennsylvania and Edward Jenner ended the menace of smallpox.

Fifty years after burial, he was reinterred in Westminster Abbey.

(Answer on page 169)

In a recent 140-patient study[1] DIMETANE gave "more relief or was superior to other antihistamines," in 63, or 45% of a group manifesting a variety of allergic conditions. Gave good to excellent results in 87%. Was well tolerated in 92%. Only 11 patients (8%) experienced any side reactions and 5 of these could not tolerate any antihistamines.

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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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RP REVIEWS BOOKS About Doctors

Conducted by SAUL A. KUCHINSKY

GUERRILLA SURGEON. *Rogers, Lindsay.* Garden City, Doubleday. 1957. $3.95.

The author is a New Zealand surgeon who assisted Tito's partisans in Yugoslavia during World War II. His story is one of "typhus and lice, typhoid and latrines, tuberculosis and housing, endemic syphilis and arsenic, rickets and feeding, nephritis and exposure, rheumatism and clothing." It is grim and real and should give second thought to readers who choose to serve in an idealistic cause on a primitive front.

The handful of doctors who care for the wounded suffer and die with the people. Not only is medical equipment hopelessly inadequate, but the Nazi juggernaut bombs and burns the hospitals, bayonets the patients and doctors.

There is a particularly moving portrait of a Lithuanian doctor-administrator, inexpertly shot in a mass execution in his native land, who survives his wound, flees to Tito's forest bands, performs first-rate surgery, a field new to him,

and is murdered when his hospital is overrun. The author himself has harrowing escapes as he flees just ahead of advancing Nazi tanks on motorcycle and truck.

It is a pity that the book is not a continuously absorbing narrative, but the writing style is inadequate; the brave author errs by protecting the reader from what could have been a massive account of terrible human suffering.

SWORD AND SCALPEL. *Slaughter, Frank G.* Garden City, Doubleday. 1957. $3.75.

A military surgeon himself in World War II, Dr. Slaughter, author of a number of popular best-sellers, turns here to the ordeal of an American surgeon in the Korean War. He takes up, unsuccessfully, that most intriguing of aftermaths of this conflict, the American soldier who has cooperated with the enemy after his capture and is faced with an American court-martial on repatriation.

Dr. Paul Scott is the protagonist, Kay Storey the sweetheart who stands by him, Father Tim the priest who gives him courage, Hilary Saunders the lawyer who successfully defends him, Colonel Hardin the bestial commanding officer responsible for Scott's trial.

The weakness of the book is that it is not at all an inquiry into the conflict of a man torn between patriotism and survival, or an ex-

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position of courage undermined, but a cops-and-robbers story of a cowardly commander and his plot to frame the military surgeon who stands up to him.

There is some interesting description of several surgical procedures. The author, to his credit, stands firmly by his doctor's decision to give equal medical care to Communist brute and American prisoner alike. A certain tension is built in the final scene of the court trial, wherein Dr. Scott is seemingly doomed and excitingly saved. But the story is at heart superficial, the style slick, the language somewhat clichéd and at times even banal.

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VIEWBOX DIAGNOSIS
(from page 21)

TUBERCULOSIS

Note irregularity of calices with narrowing of the infundibula, some of which are cut off. There are also multiple areas of papillitis, especially near the upper pole, with small areas of calcification.

●

MEDIQUIZ ANSWERS
(from page 154)

1 (4), **2** (1), **3** (5), **4** (4), **5** (3), **6** (5), **7** (2), **8** (2), **9** (3), **10** (2), **11** (5), **12** (2), **13** (1), **14** (1), **15** (5), **16** ((2).

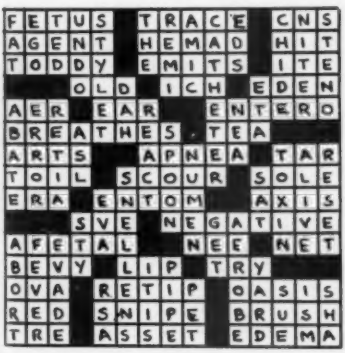
●

WHAT'S THE DOCTOR'S NAME?
(answer from page 160)

The doctor is John Hunter

●

RESIDENT RELAXER
(puzzle on page 27)



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